Modern

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JUL 15 1968 DETROIT

In this issue

NALC Report
Story of Hallenberg Press
What's New in Plates?
Report on TAGA
Outdoor Advertising
Hogan-Kaus Story







JULY, 1959





You can depend on Roberts & Porter for <u>fast</u> service on your favorite film. Every R & P branch carries a complete stock of fresh film.

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ASPHALTUM

The well balanced chemical elements in Dumore give it properties that make it a necessity in every litho shop. It washes out or dissolves any ink on the surface of the image regardless of the heaviness of the ink coverage. It provides a protective coating during storage. Since it never dries completely, it retains a tackiness and affinity for ink when the plate is re-run. It is packed in the new "Accupor" can for easy handling and it's economical — you get 4 quart cans for the price of a gallon in bulk.

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BRANCH PLANTS 4227 WEST 43rd ST., CHICAGO 32, ILL. • 1418-22 SANTA FE ST., LOS ANGELES 21, CAL.
LITH-KEM-KO ALSO SUPPLIES FINE CHEMICALS FOR SURFACE COATED, DEEP ETCH AND COPPERIZED ALUMINUM OFFSET PLATES



Cover

It was another successful convention for the National Association of Litho Clubs last month in Minneapolis, as the three cover photos indicate. New president Fred Fowler, Washington, is shown presenting Senefelder bust to outgoing president Herman Goebel, of the host club, in top photo. At bottom, Fowler and Goebel are joined by Len Holzinger, Twin City president, and Barney Skomars, convention chairman.

> WAYNE E. DORLAND Publisher

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> PAUL GEIGER Associate Editor

HERBERT P. PASCHEL Technical Editor

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MODERN LITHOGRAPHY

VOLUME 27, NUMBER 7

JULY, 1959

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COMING THROUGH WITH



MODERN LITHOGRAPHY, July, 1959



COLORS COLORS COLORS COLORS



NEKOOSA OFFS

Sharp, clean, color registration through entire runs...delivered faster without set-off

Color reproduces better on Nekoosa Offset. Highlights leap to life. Blacks and halftones are clean, crisp, saber-keen. And on the press, you'll find Nekoosa Offset feeds better, does not curl nor wrinkle. Inks lay faster, more evenly. Use Nekoosa Offset, for better runs, better results. Call your Nekoosa Paper Merchant today!



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A great new FANCY FINISH

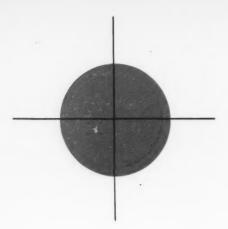
See Nekoosa's FINESSE...a new finish you'll prize for award-winning assignments

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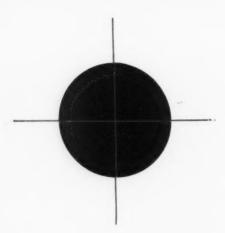


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The "hard dot," so essential to clean, brilliant images is at its ultimate in Ansco graphic emulsions. But the "hard dot" is just one of many advantages.

Take Ansco Reprolith Ortho Type B for example. This film offers perfect orthochromatic response to filtration, an advantage in eliminating costly handwork on negatives.

Why not try this superb film today. Remember, there's more to an Ansco film than meets the plate. Ansco, Binghamton, N. Y., A Division of General Aniline & Film Corporation.

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Reprolith Ortho Type B

Gaming! 3 NEW GITTERS METOS

AMERICAN TYPE FOUNDERS

ELIZABETH, NEW JERSEY

Pre-register system on new Chiefs assures first class work at top speeds

Three new, fast two-color Chiefs with advantages that spell higher profits for every hour of running time are now available from ATF.

The Chief 238 prints sheets up to $25\frac{1}{2}x38\frac{1}{2}$ " at speeds to 7500 iph.

The Chief 250 prints sheets up to 361/4x50" at speeds up to 6500 iph.

The *Chief 255* prints sheets up to 38 x 55" at speeds up to 6000 iph.

All three presses include features that save time, trouble and profits for the printer. For instance:

The pre-register system permits twice the time for registering the sheets as on presses without such a system. In effect, the press is equipped with two sets of headstops. The sheet is slowed down and brought into register at the front by the first set of headstops, underneath the previous sheet.

While the previous sheet is being transferred to the impression cylinder by the swing-arm mechanism, the next sheet moves down slowly to the second set of headstops, where it is again registered—this time front and side. The second or main headstops are adjustable while the press is running—to vary the gripper margin or correct the "lay" of the sheet. When these headstops are adjusted, the check-fingers automatically adjust to the same relative position.

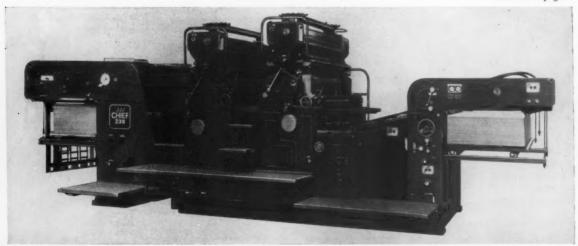
The "V" cylinder arrangement of the presses is such that both colors are printed while the sheet is held in position on the *one* impression cylinder. This eliminates register errors common to presses requiring transfer of the sheet between printing units. The printing units on the Chiefs are on

the same level, which makes them fully accessible to the pressmen. Ample room for working is provided between the color units, and convenient storage trays for inks, chemicals, etc., are provided for each unit.

The high speed stream feeder is easy to set, keeps sheets in full view while feeding. Continuous feeding—which permits pressmen to install a fresh pile of stock while the press prints the last of the preceding pile—is available without extra cost on the Chiefs 250 and 255 (optional on the Chief 238).

The swing-arm is cam-operated in both directions to insure accurate register at high speeds. The presses employ two feed cylinders, which permit the swing-arm to operate above the feed-plate and give the sheet a fairly flat line of travel

Continued on page 2



Turn page for interesting story on ATF Chief 22

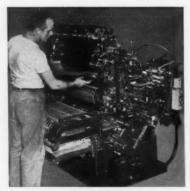
100 year old plant installs ATF Chief 22 after careful study of 17 x 22 offset presses

Sentinel Printing Company, a division of The Hempstead Sentinel, Inc., celebrated its first complete century last year, under the operation of four generations of the Van de Water family. This progressive Long Island plant has both letterpress and offset equipment, plus its own composing room and bindery. The company turns out a wide assortment of jobs for a variety of customers. A typical day's line up might include work on well over a hundred different jobs. Some recent examples: summons "tickets" for the local police department, catalog pages for a giant aircraft equipment manufacturer, business forms for a department store, window banners for a toy company, and a monthly house organ for a bank.

Always expanding and updating their facilities, Sentinel recently consulted a trade association about the best way to build up their offset operation. The technical consultants advised Sentinel to add a 17 x 22 offset press, pointing out that this size would tie in best with Sentinel's large volume of runs on both single and multi-color jobs.

The present owners, Kenneth B. Van de Water and his son, Ken Jr., thoroughly appraised all available models in the 17 x 22 size range. They lined up complete specifications and operating details from all the manufacturers, and visited plants operating offset presses in this size. On the basis of this careful analysis, the people at Sentinel decided on the ATF Chief 22. After about eight months of use, they are convinced that their choice has been justified.

Sentinel's pressman on the Chief 22, Howard Gregg, likes the fast



Howard Gregg, Sentinel pressman, finds the Chief 22's fast plate lock-up easy to work with.

set-up and getaway, as well as the general easy and trouble-free operation. And he finds the wash-up device convenient and thorough. The quality of the work the press turns out is highly regarded, too, especially where color and register are concerned. The Chief 22's inking system provides the heavy coverage needed when running color forms. And of course the compact, space-saving construction fits in well with Sentinel's neat and orderly plant layout.

Sentinel uses the Chief 22 for house organs, technical manuals, business forms, two and three color box wraps—all on an assortment of stocks, including gummed, bond, coated, tracing paper and 91# index. The pressman finds the Wale floating nozzle a great help when running hard-to-handle stocks.

This addition of an ATF Chief 22 is just one step in the Sentinel expansion program that has been going on since the company was founded in 1858, and has been accelerated in the past ten years. A few years ago Sentinel moved to its present location, a single-level building especially designed for them. And one of the primary considerations in laying out the new quarters was providing extra floor space for future expansion.

Continued from page 1

from the feed board to the impression cylinders—a distinct advantage when printing heavy card stock.

Printing pressures on the two units are adjusted by a handwheel, and micrometer adjustment on the operator's side of each unit. A calibrated dial indicates the setting.

Blanket-to-plate pressure can be varied by a simple micrometer adjustment—which eliminates the need for changing packing, should the blanket swell a little during long press runs.

The feed-plate is raised or low-

ered to compensate for differences in stock thickness. This is accomplished with a handwheel and micrometer adjustment, and eliminates the need for adjusting grippers when changing stocks.

The feed board is motorized, for easy raising and lowering.

Lubrication is automatic and semi-automatic, and very few points require individual attention. A red warning light indicates when the oil reservoir needs refilling—although press can be run for some time after it appears, without danger.

All cylinders are mounted in special alloy phosphor-bronze lined bearings, which are lubricated automatically. As a result, the press is quiet in operation and longer-wearing at these critical points.

Standard equipment on the Chief 250 and 255 includes a highly efficient mechanical gripper in the delivery, which insures accurate delivery at high speeds (this feature is also available on the Chief 238 as optional equipment).

Ask your local ATF representative or Branch for the details.



ASK YOUR DEALER ABOUT

the World's Finest Screen Fints



and the



BOX 1077, COLUMBUS 16, OHIO

AND OTHER PRODUCTS nonpariel

Develops Color Process

Richard Borghi, a Kocnester Institute of Technology senior, has developed a color photo reproducing process at a cost of \$2.70.

He used standard black-and-white electronic reproduction equipment and three basic color filters which cost 40 cents apiece, it was reported. The color print cost him \$1.50.

Basically, his process adapts to color, an electronic black-and-white engraving machine used on most newspapers. The machine is similar to a wirephoto reproducer and engraves pictures on plastic.

According to Eldon Thompson, RIT graphic arts department, "Borghi's idea would be new if it weren't for an elaborate German electronic color reproducer that does the same thing." He referred to a development by Dr. Rudolf Hell in Kiel, which sells for \$28,000."

Mr. Thompson said that Mr. Borghi's process produces newsprints

of "acceptable" but not "outstanding" quality, such as Dr. Hell's does.

"The important thing, said Mr. Thompson, is that Mr. Borghi's shortcut works on the ordinary black-and-white engraving machine, about 12,000 of which are in use in this country and Canada. It will produce color pictures for newspapers quickly and inexpensively."

Mr. Borghi wrote his senior thesis on the idea, experimenting for several months with the process before producing a clear plate. He found that the grain of the color picture had to be varied to reproduce clearly on the black-and-white machine.

Wisconsin Printing Problems

A new attempt, last month, by the printing industry of Wisconsin, to outlaw the use of certain duplicating machines by state employes got a rough reception before the assembly judiciary committee.

Atty. Stephan M. Gavin, Jr., Madison, representing the printing industry, renewed the threat of a lawsuit unless the state adopted a "reasonable approach." If the printers go to court, Mr. Gavin said, the state supreme court will have no alternative but to outlaw all forms of duplicating and printing by state workers, even mimeographing.

State agencies hit back sharply, charging that the printing industry proposal would "hamstring" state communications work and greatly increase costs.

The state bureau of purchases said that the state would have to sell \$142,000 worth of duplicating equipment, and that private firms would probably charge \$100,000 a year extra to do the duplicating work the state would be forbidden to do.

The Gavin bill was backed by both labor and management in the printing industry.

The bill would forbid state employes from making press runs of more than 3,000; would forbid the use of modern photographic offset reproduction and would outlaw the use of presses with a sheet size greater than 11 by 17". Such work woud have to be done by private firms.



Complete moisture control, full freedom from lint, with this remarkable new cover...UNI-DAMP® by Jomac

Jomac's new dampener cover is "Triodized" to give absolute uniformity, complete freedom from lint, and perfect moisture control. Put it on your press and you'll get finer reproduction than you've ever seen before!

Available in cut lengths to fit dampener rollers of all sizes, with drawstrings on one

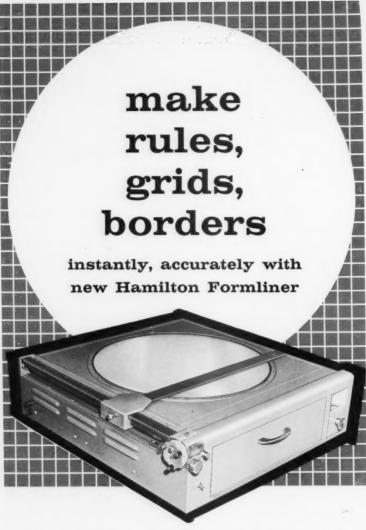
end. Also available in rolled lots. Regardless of size, these Jomac pre-cut, stretchtested sleeves will save you dollars in cutting, sewing and covering time. And your customer will appreciate the extra quality of your work. Uni-Damp is part of the famous Jomac graphic arts family, including Seamol,® Flanol® and Bildup Knit Tubing. Write today for details and prices.

Break dampeners in and keep them clean with a Jomac Roller Cleaner-Dryer



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The circular lighted work surface rotates 360° for accurately making rules, grids and borders on negatives or opaque sheets. Vernier scale is calibrated to $\frac{1}{4}$ degree and has positive click stops every 15° for maximum speed and accuracy.

The bevel edged stainless steel rule is controlled by a hand-wheel with click stops at 1/100, 1/72 and 1/64 inch intervals. Instant setting mechanism synchronizes rule with Pica, Elite, IBM, Vari-typers or printer's measures. New Hamilton Form-liner handles any size film to 11 by 18 inches or 14 inches square. See the new time-saving Formliner at your Hamilton dealer's or write, Printers Equipment, Hamilton Manufacturing Company, Two Rivers, Wisconsin.

Hamilton

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Litho Schools

- Canada—Ryerson Institute of Technology.
 School of Graphic Arts, 50 Gould St.,
 Toronto, Ont., Canada.
- Chicago—Chicago Lithographic Institute, 1611 W. Adams St., Chicago 12, III.
- Cincinnati—Ohio Mechanics Institute, Cincinnati, Ohio.
- Cleveland—Cleveland Lithographic Institute, Inc., 1120 Chester Ave., Cleveland 14, Ohio.
- Los Angeles—Los Angeles Trade Technical Junior College, 1646 S. Olive St., Los Angeles 15, Calif.
- Minneapolis—Dunwoody Industrial Institute, 818 Wayzata Blvd., Minneapolis 3, Minn.
- Minneapolis Vocational High School, 1101 Third Ave. South, Minneapolis 4, Minn.
- Nashville—Southern School of Printing, 1514 South St., Nashville, Tenn.
- New York—New York Trade School. Lithographic Department, 312 East 67th St., New York N. Y.
 - Manhattan School of Printing, 72 Warren St., New York, N. Y.
- Oklahoma—Oklahoma State Tech., Graphic Arts Dept., Okmulgee, Okla.
- Rochester—Rochester Institute of Technology Dept. of Publishing & Printing, 65 Plymouth Ave., South Rochester 8, N. Y.
- Pasadena—City College, 1570 E. Colorado St., Pasadena, Cal.
- Philadelphia Murrell Dobbins Vocational School, 22nd and Lehigh, Philadelphia, Pa.
- Pittsburgh—Carnegie Institute of Technology School of Printing Management, Pittsburgh.
- San Francisco—City College of San Francisco.

 Ocean and Phelan Aves., Graphic Arts Department.
- St. Louis—David Ranken, Jr., School of Mechanical Trades, 4431 Finney St., St. Louis 8, Mo.
- Vancouver—Clark College.
- West Virginia—W. Va. Institute of Technology. Montgomery, W. Va.

Trade Directory

Internati. Assn. Ptg House Craftsmen P. E. Oldt, Exec. Sec'y. Room 307; 411 Oak St., Cincinnati 2.

Lithographers and Printers National Association Oscar Whitehouse, Exec. Dir. 1025 Connecticut Ava., N.W., Wash., D. C.

Lithographic Tech. Foundation William H. Webber, Exec. Dir. 131 East 39th St., New York 16, N. Y.

National Assn. of Litho Clubs Frederick Shultz, Sect. Buckbee Mears Co., Toni Bldg., St. Paul 1, Minn.

National Assoc. of Photo-Lithographers Walter E. Soderstrom, Exec. V.P. 317 West 45th St., New York 36, N. Y.

National Metal Decorators Assoc., Inc. James G. Smith, Secretary P.O. Box 506, Crawfordsville, Ind.

Printing Industry of America Bernard J. Taymans, Mgr. 5728 Connecticut Ave., N.W., Washington, D.C. JUST

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A SURE WAY TO PRESSROOM ECONOMY!

MERCURY PRODUCTS

In these days of rising costs the economy of Mercury rollers and blankets is extra important to lithographers aiming for profits. A comparison with ordinary accessories will quickly demonstrate how these rollers and blankets reduce make-ready and wash-up time, spoilage, and replacement costs. Remember, quality is always the biggest economy in the long run!

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Put the S-T Process to work in your plant—and your accountant will measure the results for you.

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Offset press performance driving you crazy? If it's paper that has you off the beam, fine quality, double coated Consolidated Enamels will put you back on the right track in a hurry. They're trouble-free because every sheet is double coated on both sides to give you maximum uniformity, greater stability and more pick resistance. They run better . . . print better . . . look better, yet Consolidated double coating doesn't cost you a penny more. Ask your Consolidated Merchant for free trial sheets. Make a test run and see for yourself.

 $Available\ only\ through\ your\ Consolidated\ Paper\ Merchant$

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FINE QUALITY LETTERPRESS — Production Gloss, Modern Gloss, Flash Gloss



enamel printing papers

A COMPLETE LINE FOR OFFSET AND LETTERPRESS PRINTING Consolidated Water Power and Paper Co. - Natl. Sales Offices: 135 S. La Salle St. - Chicago World's largest specialist in enamel printing papers



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Quick drying for stencil duplicating. Excellent surface for offset and letterpress printing. Properly sized for pen and ink.

New shade of white and six attractive colors. Standard sizes and weights.

Ask your Franchised EASTERN Merchant for samples. Or write direct.



EASTERN

EASTERN FINE PAPER AND PULP DIVISION STANDARD PACKAGING CORPORATION

BANGOR, MAINE



'Ardent Reader'

Dear Sir

I have been an ardent reader of Modern Lithography since 1947 and still look forward to receiving it each month. We are, as of now, having it sent to each person in our offset operation.

Glenn M. Roseman, Snyder Printing & Litho. Co., Concord, N. C.

New Technical School

Dear Sir:

On Sept. 4, 1958, the Bucks County Technical School opened its doors to students for the first time. We are an area technical high school serving the 10th, 11th and 12th grades from seven school districts, in lower Bucks County. It is the first school of its kind in Pennsylvania.

We would appreciate any literature or catalog information you can send relative to printing — offset or letterpress.

Joseph Simonetta,
Bucks County Technical School,
Fairless Hills, Pa.

Congratulations on entering the graphic arts! A list of books handled by ML has been sent. Suggest you also contact the Lithographic Technical Foundation for a complete list of books on all phases of lithography.—Editor.

Likes Cooperation

Dear Sir:

Enclosed is our Association's annual report for 1958-59. The activities and programs reported were aided immeasurably by the cooperation of your magazine, and we thank you for your understanding and support of what we are trying to do.

Paul M. O'Brien,
N.Y. Employing Printers Assoc.,
New York

Looking for a Job

Dear Sir:

I dare to turn to you. I will come to your country as an emigrant, perhaps this year. Therefore, I want to ask beforehand if you can help me to get work. I am a photoengraving and litho photographer and have worked 16 years in this occupation. I am now the boss in a little engraving business, but I am willing to work at anything you would like.

I learned this type of photography in Sweden in 1951, in Germany, in 1954 and in England, at a Kodak course, in 1958. That is why I hope to come to work in some factory in the U.S., because your country is first, may be, in the world.

I am 30 years old and have a family too. I have studied English two years and hope to be able to speak better by the time I arrive. I can send more information, if desired.

Jarmo Koskinen, Roihuvuorentie 10, K 97 Helsinki, Finland

Any reader interested in Mr. Koskinen is urged to correspond with him directly.

—Editor.

INCORPORATIONS

The following New York firms have been granted charters of incorporation:

Kim Lithographing Corp., 855 Avenue of the Americas, New York;

Danal Lithographers Inc., 350 Broadway, New York;

Dutchess Offset, Inc., 2 Cannon St., Poughkeepsie;

Madewill Offset Plate Service, Inc., 1419 St. John's Pl., Brooklyn;

Liberty Lithographing Co., P.O. Box 96, Peekskill;

Crescent Lithographing Co., P.O. Box 96, Peekskill;

Michael Kane Lithographic Corp., 134 W. 26th St., New York; and

Lincoln Offset Inc., 35-53 77th St., Jackson Heights.

Meetings

International Association of the Printing House Craftsmen, Statler Hotel, New York, Sept. 5-9.

Printing Industry of America, 73rd annual convention, Waldorf-Astoria Hotel, New York, Sept. 6-10, 1959.

Label Mfgrs. Association, Park Sheraton Hotel, New York, Sept. 6-12.

7th Educational Graphic Arts Exposition, Coliseum, New York, Sept. 6-12, 1959.

National Metal Decorators Association, 25th annual convention, Roosevelt Hotel, New Orleans, Oct. 12-14, 1959.

National Association of Photo-Lithographers, annual convention and exhibit, Hotel Muehlebach, Kansas City, Mo., Nov. 18-21, 1959.

National Association of Litho Clubs, 15th annual convention, Hotel Statler, Boston, May 19-21, 1960.

Lithographers and Printers National Association, annual convention, Boca Raton Club, Boca Raton, Fla., April 25-28, 1960.



PRIDE IS A SUNFISH. Pride. Born in an instant of sun and water. Revealed in a boy's first catch. Reflected in a father's dream come true. Pride is a part of a man's heritage. Good printers know its truth. Proud craftsmen find it in Atlantic fine papers.



Cover · Bond · Opaque · Offset · Ledger · Mimeo · Duplicator · Translucent

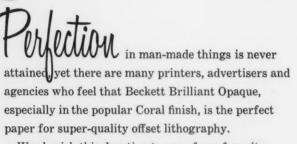
Atlantic

EASTERN FINE PAPER AND PULP DIVISION . STANDARD PACKAGING CORPORATION . BANGOR, MAINE



BECKETT'S BEAUTIFUL STEM SIMM





We cherish this devotion to one of our favorite products, yet we constantly strive more closely to approximate perfection.

The new finish on which this insert is printed is a good example of our ceaseless quest.

We call it Satin Shell. This unique finish has a fine-grained texture imposed on a discreet, subdued gloss.

There are other important features of this finish. It offers exceptional resistance to smudges and fingerprints. The lustrous surface gives a sheen to halftone illustrations, especially the darker areas. The embossing adds texture to the backgrounds and illustrations in a printed piece.

This insert is printed on Beckett Brilliant Opaque. Satin Shell finish, however, is also available on Beckett Hi-White and Beckett Offset.

This is BECKETT BRILLIANT OPAQUE, Satin Shell finish, 80 lb.



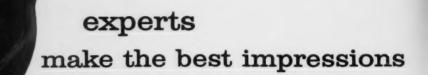
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MAKERS OF GOOD PAPER IN HAW LTON OH O SINCE 1848

xpert in glowing color ...



where your printing ink dollar buys more



Printers are sure of getting the
best impressions everytime they go to press...
when they combine efforts with the ink experts
at S&V. Backed by Sinclair and Valentine Co.'s
coordinated program of research,
quality control and technical service, S&V's
printing ink color engineers are on call
at each of the 50 strategically located
S&V plants. They are available to help you
reach maximum, economical production on
every run. Work with them on your next job...
the combination of expert skills
will result in superior performance
and more for your printing ink dollar.

Sinclair and Valentine Co.

611 West 29th Street, New York 27, New York Canadian Affiliate: SINCLAIR and VALENTINE CO. of CANADA, LTD.

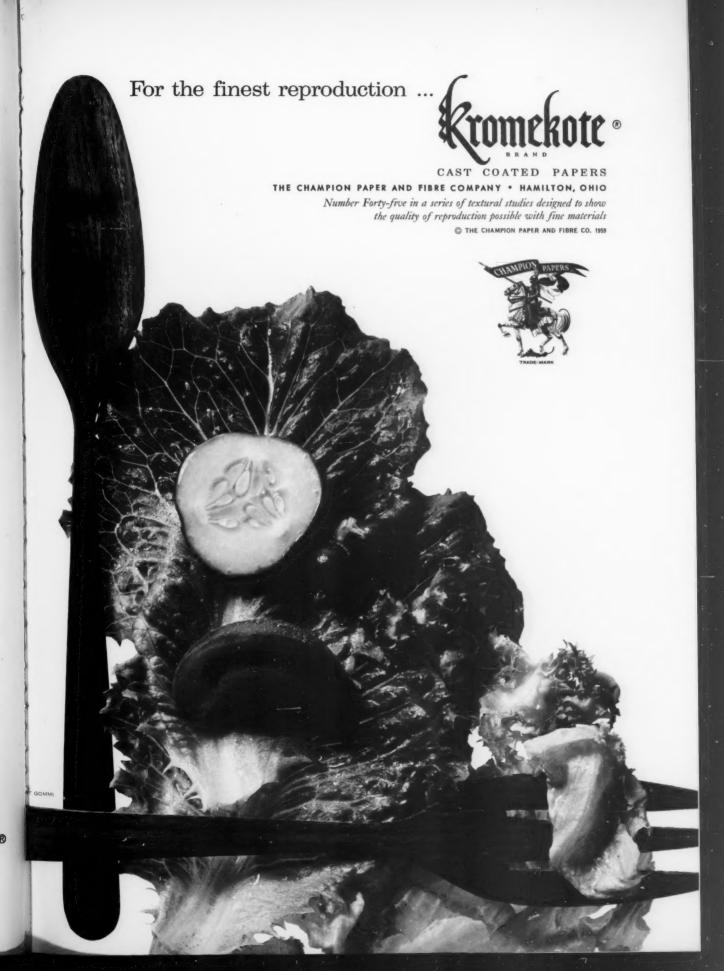
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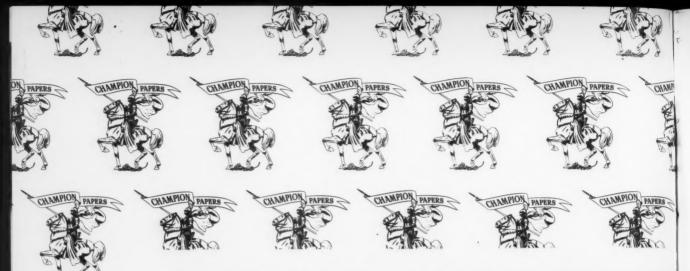
Manufact ers of the finest inks, colors and chemicals ...

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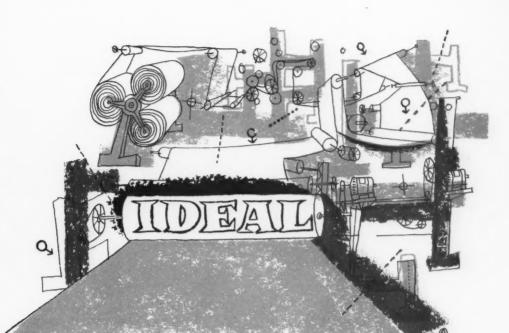
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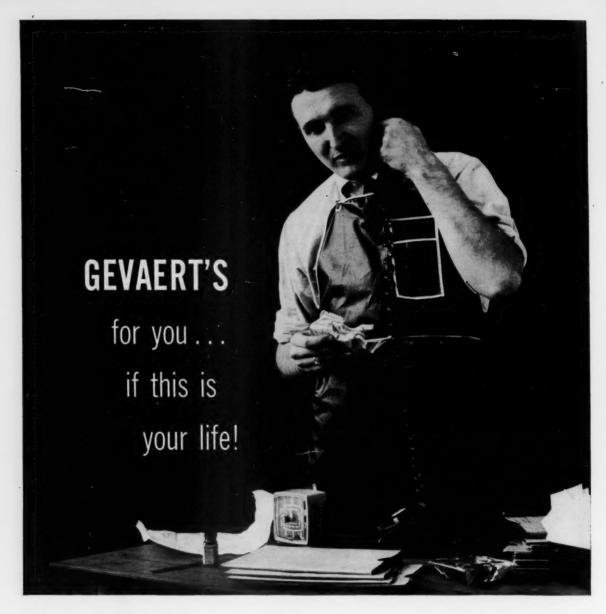
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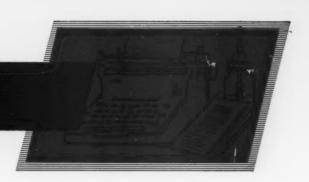
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MODERN LITHOGRAPHY, July, 1959

EDITORIALS



A Museum for Printing?

WHERE does one go to get information on printing, in all its various forms? To the library, to a print shop, or perhaps to the Smithsonian Institute?

Well, you might get a little bit of help at each of those places, but you wouldn't have much when you were all through. Most libraries of any size have the usual encyclopedias, and a few other reference works that touch on printing, lithography and allied trades.

The Smithsonian Institute has a fine exhibit, as far as it goes, but it is scanty indeed, as compared with the displays for most other industries . . . particularly so when you consider the importance of printing to civilization, and its long and romantic history.

To a print shop? Worst place in the world to get any information, for the man at the press is far too busy with all those rush jobs to afford the luxury of quiet contemplation and study of his ancient and honorable art.

One recent visitor to New York, Elwin E. Mc-Cray, an assistant professor of journalism at Michigan State University, was pleasantly surprised at the warm reception he got from directors of trade and professional associations, who suggested visits to local plants, libraries and educational centers. "But where," he asked, "is your printing museum?" He was advised, of course, that there is none.

"The sight of thousands of school youngsters visiting New York's art and science museums by busloads each week," he commented, "indicates that a physical portrayal of printing's background and applications would prove fascinating to youth—and older folks as well. Furthermore, and not just incidentally, it would be excellent industry promotion."

Seems to us that Professor McCray's argument is well taken, and not alone for New York. Perhaps one of these days an overall committee comprised of industry leaders from all processes, trade association personnel, educators and other interested (Continued on Page 107)

Quote of the Month:

"... We looked forward to the "fabulous fifties," although none of us knew at the time just how fabulous they would be — for other industries ... For American business generally it was a decade of unprecedented expansion (but) what happened to the printing industry? Well, dollar sales almost doubled for the industry as a whole, but the trend of profits was a much different story. Starting with an inadequate 3.54 percent after taxes in 1950, there has not been a single year in which we even matched this unsatisfactory figure in the New York area. . . . The fact is that at the end of the fabulous fifties — at the end of the rainbow of increasing sales — a large number of our firms have discovered not a pot of gold, but only that their equipment is 10 years older. And every day it gets a little harder to match yesterday's production on the same machines." — Don H. Taylor, president, N. Y. Employing Printers, in an address at MPA meeting in Newark, N. J.

NALC Elects Fowler

14th annual convention in Minneapolis draws good attendance; group still snagged on plan for permanent secretary, headquarters

THE National Association of Litho Clubs apparently is on the threshhold of taking a big step forward, as far as graphic arts associations are concerned. That was the consensus of many members interviewed by ML last month at the 14th annual convention of the association, in Minneapolis.

The group convened at the Hotel Leamington, June 11-13.

Elton Baker reiterated his analysis that the association could profit by a permanent headquarters and "permanent" executive secretary but cautioned that such a move would involve the outlay of far more money (a minimum of \$1,500 a year) than is now in the NALC budget.

Frederick A. Fowler, of Washington, new president of the association, declared in an address to the convention, however, that some way soon must be found to establish a head-quarters for the group and to employ at least a part-time executive secretary. In addition, Mr. Fowler said he looks forward to the setting up of a regular publication for the association. He referred all three ideas to the NALC's long range planning committee for further study.

Much Duplication

It was generally agreed that until the association has one person, and one address, on which to focus its attention, there will always be a lot of misdirected effort and duplication of work by national and local officers.

The major snag to the anticipated expansion, however, is the question

of raising the additional funds for such a program. Mr. Baker estimated that the cost of an executive secretary might be \$100 to \$200 a month, depending on the scope of the services desired.

Several delegates, recalling the bitter dues battle of 1956, told ML that they believed they would encounter strong opposition from their clubs to another increase.

Several officers, in their convention reports, noted the increased postal costs, and John W. Murphy, outgoing treasurer, suggested that for this reason alone, an increase in dues might soon be necessary.

President Fowler told ML that any move for a dues increase would be preceded by a careful educational program, aimed at showing all clubs, and all members, just what the benefits of the NALC are to them and what further benefits would accrue with a headquarters and a permanent secretary.

In his address, Mr. Fowler also called for a series of forums in various sections "to develop practical leadership." The forums would be sponsored by area litho clubs, with George Mattson, of PIA, who has long experience in foreman training, scheduled to moderate.

To inform litho clubbers of new technical developments, Mr. Fowler appointed Frank Petersen, of Cincinnati, as technical director.

New Officers

Mr. Fowler succeeds Herman Goebel as head of NALC. Elected with him were Rae H. Goss, Chicago, 1st vice president; Mr. Murphy, 2nd vice president; and James Fraggos, Boston, treasurer.

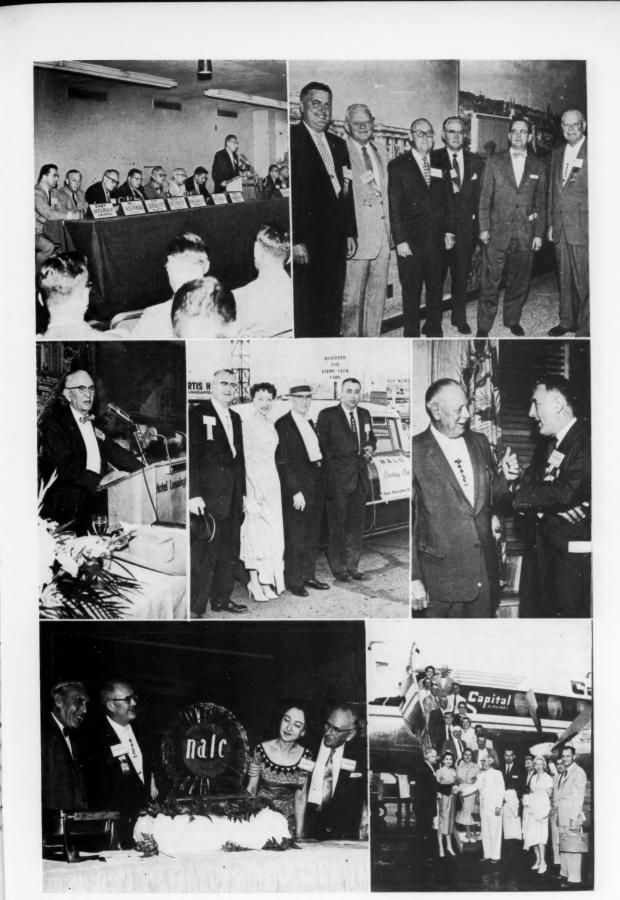
President Fowler's appointments also included Stephen Rubenstein, Philadelphia, as historian; Russell B. Waddell, Milwaukee, educational chairman; and David Gandelman, Connecticut Valley, and Jack W. Miller, Milwaukee, assistant secretaries. W. O. Morgan, Chicago, continues as club coordinator, with

In the Photos

Top: Part of the Saturday morning quiz panel; NALC past presidents Tucker, Spevacek, Starkey, Morgan, Blattenberger and Goebel.

Middle: Public Printer Raymond Blattenberger addresses luncheon; Mr. Blattenberger is welcomed by Felton Colwell (left) and Mr. and Mrs. Barney Skomars; outgoing president Goebel welcomes new president Fowler.

Bottom: John Grant, GPO, Mr. Colwell, Mrs. Madeline K. Hare and the public printer admire NALC display at smorgasbord supper; reception committee welcomes Milwaukee and Philadelphia contingents on arrival at Minneapolis airport.



MODERN LITHOGRAPHY, July, 1959



At NALC convention: Top: Emil G. Rykosky, Louis Happ and Peter Rice; Stephen Rubenstein, James Fraggos, Joseph Peroutka and Henry Lewis. Middle: New Officers—Geegh, Fraggos, Dodd, Goss, Rubenstein, Fowler, Waddell, Murphy and Morgan; president Fowler airs plans with delegates. Bottom: Egan F. Osterhaus, Marvin Hannze and Frank Spoto; registration officers from the Twin City club.

William Dodd, Houston, assisting.

Here are other highlights of the
NALC meeting:

- The delegates chose Miami as the site of the 1962 convention, after a spirited contest in which Rochester and New York participated. The vote was Miami 33, New York 17, Rochester 15.
- All 28 member clubs were represented at the meeting, with delegates coming from as far away as Los Angeles and Florida.
- In his report, Mr. Baker remarked that the idea of employing a retired lithographer as permanent executive secretary "seems more romantic than practical." An alternative is to use a professional service to handle the duties.
- At the educational meeting on Thursday afternoon, Mr. Waddell

presented a recommended procedure for installing new litho club officers, with a group of delegates enacting a typical ceremony. The session concluded with a general discussion of methods of planning programs for local meetings.

Indianapolis Accepted

- In reply to a telegrammed request from the Indianapolis litho club for membership in NALC, the group immediately voted approval of the club, and wired their acceptance right back.
- No fewer than 17 technical men were on hand Saturday for the quiz session in the morning and a series of round table discussions in the afternoon. There was no shortage of questions because of a clever stunt by the host club: Five silver dollars were awarded every one asking a

question from the audience.

· Public Printer Raymond Blattenberger addressed the Saturday luncheon, calling for greater participation in trade association activities, and greater cooperation among various members of the graphic arts, in an attempt to solve mutual problems. The printing industry has a total of 45,000 plants of all types and is a \$5 billion industry, he noted. "But the promise and possibility of the graphic arts are just being glimpsed," in his opinion. "The printer and lithographer must become more scientific if he is to make progress. He must know his costs, his markets and his suppliers."

There was high praise for the Twin City club, which acted as host at the convention. Many delegates termed it one of the best organized and best run conventions of recent years. A number of social gatherings, sponsored by a suppliers group, a full program for the ladies and the annual banquet supplemented the business program. Barney Skomars was general chairman of the convention, assisted by a big staff from the local club.

Main topic at the technical panel was the running of gold and fluorescent inks. Advice was to use a smooth plate and less water, to prevent dilution of the gold on press. Distribution of the gold ink on the press also is vital, it was asserted. Other questions dealt with relative humidity, use of a densitometer, and proving problems, with very little, for a change, on that age-old bugaboo, hickies.

Among the NALC old-timers at the meeting were past presidents Al Rossotti, Al Tucker and Jim Spevacek.

The Mid-Season Council of Administration meeting will be held Saturday, January 23, 1960, at cities to be selected.

Next year the annual convention will be held at the Statler Hotel, Boston, May 19-21.★



Layout department at Hallenberg (left) utilizes shelf along wall to provide ample work space and keep layout tables clean and uncluttered.



Clothes line on pulley (right) runs from developing room into layout department, saving many steps.

ONE of the most striking things about the growth and expansion of offset plants today, is the individuality each one maintains, both in the physical arrangement and appearance of the plant, and in ideas and services.

This individuality, in spite of the similarity of equipment and processes, sets each company apart from its competitors, and may very well be the most important link it has with success.

At Hallenberg Press, Inc., in St. Louis, one of the more recent offset plants to enjoy expansion, the orange and black walls and door frames, with brass appointments, is quite striking. The fact that the move was made last Hallowe'en, however, had nothing to do with the choice of colors, president Paul Groerich advised.

Bright colors help make up for the lack of daylight, he explained, because windows, for security reasons, are set high on the wall.

Both Mr. Groerich, and his partner, Raymond Benz, vice president, built many of their own ideas into the 7,000 sq. ft., one-story plant.

3-Compartment Darkroom

Rather unusual is the three-compartment darkroom designed to increase flexibility and minimize spoilage. A 20 x 20' area is divided into three compartments with a light trap passageway separating the "wet" and "dry" sections. The third compartment is the contact room. All three are air-conditioned. Work can go on simultaneously in each of the three areas.



New plant of Hallenberg Press, St. Louis

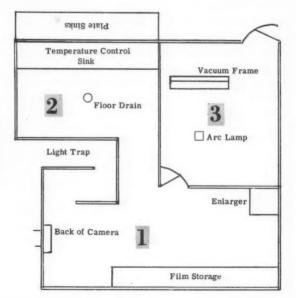
At Hallenberg Press the

Efficiency Is by Design

Another design feature is a sliding panel in the developing room compartment which opens onto the layout department. After the cameraman has washed his negatives, he merely lifts up the window and sends them out on a clothes line fastened to a pulley on the darkroom wall.

A 24" Robertson camera is in the "dry side," or compartment 1. The other areas are known as the "wet (Continued on Page 105)

Three - compartment photographic section: 1. Camera room; 2. "Wet Side;" 3. Contact room. Light trap passageways separate sections.





Pasteup dummy, above, and completed volume, below, of 'SHRDLU,' 50th anniversary book published by National Press Club in Washington, D. C.

this 'SHRDLU' is no mistake!

BOTH photocomposition and lithography were applied in the preparation and publication of the recently issued National Press Club's 50th Anniversary book, SHRDLU, (affectionately lifted from the compositor's label of confusion when he clears his keyboard on the linotype in two quick strokes, with the invariable result . . . "etaoin shrdlu," in type.) This publication proved the convenience of photocomposition and offset.

Profusely illustrated with 172 separate cartoons and photographs, a world-wide membership roster of 4,673 names, plus some 80,000 words of type, SHRDLU was an unusual production and a suitable memorial to the club whose majority of members earn their living from various sections of the publishing world. John P. Cosgrove, editor of Broadcasting Businessweekly as well as of SHRDLU, said the club wanted the book to reflect the best in present day publishing. At the same time, it had to be produced by a volunteer staff, with a minimum of time, effort and expense. Mr. Cosgrove told ML, "After reviewing the processes available, we chose photolithography and photo-typesetting as developed by Colortone Press of Washington, D. C. To some of us, this was

an almost unfamiliar form of printing. Nonetheless, no new or unusual problems were encountered at any point in the production. In fact, it seemed that the offset method has many advantages over letterpress. The galley proofs were actual photo-finished sheets. The type was sharp and bright, without the usual ink smears and blurs in proof reading. The 'engraving' proofs were similar to a blue line print and could easily be trimmed to fit."

Mr. Cosgrove was delighted with the ease with which the illustrations and display type could be handled and blended with the text. A number of faded historical photos were sharpened by 150-line screen treatment at Colortone and some senior members of the club remain puzzled as to why the photos in the book look better than the originals.

Al Hackl, president of Colortone, continuing his promotion of color lithography, sold the club on a full page 300-line screen color duotone of President Eisenhower.

Mr. Hackl reported to ML, "We founded our company in 1946 on the premise that color in printing was the trend of the future and we wanted to see SHRDLU modern in every respect." —Mike Geary.

TAGA Elects Tobias

Instrumentation and investigative techniques highlight annual meeting of technical group at Rochester in June

By Herbert P. Paschel
Technical Editor

IF the number of papers on similar subjects presented at the 11th Annual TAGA Meeting at Rochester last month, are any indication of a general trend, then research is for the moment concentrating on ways and means of investigating graphic arts problems. Instrumentation and investigative techniques might be said to have been the theme of the '59 meeting and this is in keeping with the TAGA slogan "Tomorrow's Answers for the Graphic Arts,"

Papers dealing with everyday problems on the "shop" level were in the minority. But the current crop of papers foreshadows significant improvements in photomechanical techniques in the not too distant future.

Before preventive and corrective measures can be undertaken, the exact cause of a problem must first be determined, defined and measured. And, in many instances, the lack of instruments specific to the problem makes instrument design the first order of business. Among the papers exemplifying the above were the following:

"Current Studies of Ink Transfer to Paper in Lithography," Charles H. Borchers and William L. Boehm; Lithographic Technical Foundation.

"A Bench Test for Predicting the Effect of the Fountain Solution on Pick and Curl of Offset Papers," N. J. Beckman; Kimberly-Clark Corp.

"Some Experimental Techniques for Studying the Fluffing of Printing Papers," Evelyn J. Pritchard; Printing, Packaging and Allied Trades Research Association, presented by W. H. Banks.

"Conversion Factors for the Air Permeability Measured by Different Instruments" D. Tollenaar and A. H. H. van Royel; Instituut voor Grafische Techniek.

"A Reflection Densitometer Head for the Control of Ink Amounts on Proofs" Harry H. Hull; R. H. Donnelley & Sons Co.

"A Scanner for Making Photographic Masks" D. J. Howe, R. E. Maurer, and J. H. Worth; Eastman Kodak Co.

"Electronic Techniques for Analyzing Color Separation Errors" John S. Rydz; Radio Corporation of America.

"Some Theoretical Aspects of the Lithographic Process" Grant C. Beutner; RB&P Chemical and Supply, Inc.

"Web Tension Research on Rotogravure Presses" Harvey F. George and John J. Kimball; Gravure Research, Inc.

"Technique for Measuring High-Speed Ink Film Transfer" Alden E. Yelmgren; ANPA Research Institute.

"Piezoelectric Measurement of Printing Pressure" Lars S. Nordman, Rolf Ginman, Goran Olofsson, and Veijo Eravuo; The Finnish Pulp and Paper Research Institute.

Immediate Use

Instruments which could find immediate application at the production level are a reflection densitometer for measuring and controlling the amounts of ink on proofs and a scanner for making photographic masks. The latter device, though not commercially available, offers some very practical and intriguing possibilities. Continuous-tone three-color separation negatives are made in the conventional manner in a camera, enlarger or by contact. These negatives are mounted on the transparent plas-

tic drum of the rotary scanner. In operation, the three negatives are scanned and the three electric signals fed to a computer which, in turn, controls the exposure of a piece of sensitive film mounted on an adjoining section of the drum.

Any number and type of masks can be made in this manner. The resulting masks are finally registered with their companion negatives and from these combinations the halftone positives are made. The circuitry of the computer can be changed at will by means of plug-in units. This affords considerable variation in the degree and type of masks produced. The latitude in varying the characteristics of the separation negatives, plus the flexibility of the masking circuitry, provide a manual-electronic technique which could be adapted to the needs of any and all printing processes.

The machine described in the paper is a research tool for a detailed investigation of masking and color correction. Although there are no plans for commercializing the scanner, its obvious versatility could easily lead it in that direction sooner than expected.

Of more immediate and practical

New TAGA Officers

PRESIDENT—Philip E. Tobias
1st Vice President—William C. Walker
2nd Vice President—Warren L. Rhodes
Secretary-Treasurer—Cyril A. Horton

(Full Picture Story of TAGA Meeting Next Month)

ML on Borrowed Time Why not enter an extra Subscription for your plant so you'll have plenty of time to read it every month.

Reading

interest to graphic arts craftsmen were the papers presented by Paul Hartsuch, LTF, R. E. Maurer, F. R. Clapper and J. W. Gosling, all of Eastman Kodak Co., and Warren L. Rhodes, RIT. The paper presented by Mr. Maurer ("The Relation of the Contact Screen to Picture Quality"), and subsequent discussions at the Kodak Research Laboratories indicate that the future will see the development of contact screens tailormade for the specific reproduction task. Not only will separate screens be developed for negative and positive work but for the requirements of individual processes as well.

In "Balanced Halftone Separations for Process Color," Frank Clapper outlined a method for evaluating and controlling the colorbalance of a set of halftone separations. The method is based on the concept of "equivalent neutral density" which has proved to be quite successful in photographic color systems.

"Photographic Uses of Negative Color Materials," (J. W. Gosling), described a method of producing half-tone separation positives direct from color negatives with a two-stage masking technique.

Color Cleanliness

By means of data tables and the LTF color circle, Paul Hartsuch illustrated his talk on "How Changes in the Hues and Cleanliness of Process Inks Affect the Cleanliness of Inbetween Colors." According to the data there is a high degree of correlation between the predicted results and actual experience. This would indicate a simple means is available to craftsmen for evaluating the efficacy of a set of process inks for a given job. Warren L. Rhodes gave an interesting paper on the "Empirical Determination of Color Error."

(Bound preprints of all the papers delivered at the meeting are available from TAGA secretary-treasurer Cyril A. Horton, c/o Kodak Research Laboratories, Rochester, New York, at \$5 for members, \$10 for non-members).

Evidence of the growing interest in graphic arts research was the large and attentive audience. Each of the paper sessions filled the auditorium to capacity. Even on Monday, after a total of six hours of papers and discussions in the morning and afternoon sessions, the evening program attracted a SRO crowd. Among the 311 registrants were 16 from overseas representing such countries as Engand, Finland, France, Holland, Italy, Germany, Sweden and Denmark. Many of the members and visitors were accompanied by their families.

The banquet audience was entertained and held spellbound by the speaker of the evening, Cyril N. Hoyler of RCA. His demonstrations of the creation of light, pictures and sound by unique electronic devices were both fascinating and educational. Mr. Hoyler revealed a rare combination of scientist and showman by the depth of his knowledge and his oft humorous commentary.

The tours which concluded the 11th annual meeting were likewise well attended. They included visits to Stecher-Traung Lithograph Corp., RIT, Case-Hoyt Corp., Eastman Kodak Research Laboratories, Burroughs Corp., Todd Co., Div., and Haloid Xerox, Inc.

Tobias Elected

The interests of the 608 TAGA members for the '59-'60 term will be under the direction of a group of officers headed by new president Philip E. Tobias, formerly director of research & engineering at Edward Stern & Co., and now an independent consultant. Other officers are William C. Walker, West Virginia Pulp and Paper Co., 1st vice president; Mr. Rhodes, 2nd vice president; and Cyril A. Horton, Kodak Research Laboratories, secretary-treasurer. Roy W. Prince, ANPA Research Institute, was elected a member of the Board of Directors.

The 12th Annual TAGA meeting next year, will be held in Washington, D. C. Committee chairman Robert J. LeFebvre, chief of state service, GPO, outlined tentative plans for the papers session, plant visits and sight-seeing tours.*

What's New In Plates?

By Albert R. Materazzi Litho Chemical and Supply Co., Inc.

THE decade ending this year has seen more advances in the field of platemaking than in all of the previous century and a half history of lithography. These advances have been in large measure responsible for the explosive growth of the lithographic industry. To exemplify the revolution which has occurred we need only remember that the first metal presensitized plate was marketed in this country in 1950 and then was available only in the duplicator sizes.

A survey conducted by Modern Lithography in 1956 revealed that 75 percent of the shops in the country were using some type of presensitized plate. In January of this year the staff of Modern Lithography made a spot check to bring the survey up-to-date and found that it is now "difficult to find a litho shop—particularly in the small and medium size categories—that is not using them for at least some jobs."

The advances in platemaking come so fast that techniques and materials which were considered epoch-making when they were introduced a few years ago are now obsolete. As an example of this consider that the first tri-metal plate was introduced in this country in 1948. Today that plate is obsolescent and has been replaced by more modern materials.

Until the end of World War II, the lithographic industry was limited to two types of plates, surface and deep-etch. The metals we used were primarily ball-grained zinc and, when



Albert R. Materazzi

we could get it, ball-grained aluminum. For coatings we used bichromated albumen in surface plate making and bichromated gum arabic or glue in deep-etch platemaking. The so-called "non-blinding" lacquers were only introduced in the early 1950s. Today we have a wide variety of quality controlled products available to us which have taken most of the guess work out of litho plates.

To attempt to report all these advances in detail would be impossible in this space. I will however attempt to summarize briefly the more important modern processes.

Let us begin with the base metals we are using today. These are still primarily zinc and aluminum with the trend toward more and more use of aluminum. However, the zinc industry has initiated research at improving the zinc surface so that it will meet some of the advantages presently held by the lighter metal. Up until a few years ago the aluminum used in platemaking was a

special grade and sold at a premium price. Today we are mostly using mill-finish aluminum. Its price is now even lower than that of zinc in the larger sizes and it is available in almost unlimited quantities. There are a few shops using stainless steel or monel metal in their plate departments.

Graining Methods

While the base metals have not changed to a great extent, there is a great change taking place in the preparation of the surface of these metals. No longer are we limited by the tub ball graining machine. We are now producing extremely fine grains by a variety of methods: we are dry steel-brush graining, we are wet-brush graining, we are sandblasting, we have anodized surfaces available and chemical graining techniques are being used more and more. Special chemical surfaces are being produced which completely passivate the metal, greatly reducing the possibility of oxidation and subsequent scumming and permitting us to use diazo chemicals by merely wiping them on, thus eliminating the whirler.

In surface platemaking, no longer are we married to egg albumen. Some of you may remember that only Chinese eggs would do and that many of the troubles we had during the war were attributed to the fact that we were cut off from this source Today we are using a variety of colloids in the preparation of surface coatings, both natural and synthetic. Casein derived from milk is the principal one, but we are also using modified forms such as am-

From a talk presented at New York Employing Printers Association Lithoshow, New York, May 2.

monium caseinate, soy-bean casein and even colloids from the plastic industry which have long imposing names but have been conveniently abbreviated to initials such as PVM/ MA half-amide or PVM co-polymer. But not only the coatings have been improved. We now have available lacquers which reinforce the exposed image and greatly reduce the possibility of blinding due to abrasion or chemicals. Again most of these come from the plastic industry. The resins employed in making these lacquers are obtained from a wide variety such as vinyls, phenol-formaldehyes, furfurals, etc. To the improvement in coatings and lacquers we must add the improvement in technique resulting from the research conducted by the Lithographic Technical Foundation. These are the preand post-treatments of the plate which increase the water-receptivity of the non-printing areas so that scum has been practically eliminated. Some of the more familiar ones are the Cronar process and the postphosphate treatment. To these we must add the improvement in the formulation of desensitizing etches.

Wipe-On Plates

Also in the field of surface plates we now have the so-called wipe-on plates. Most of these require a specially treated aluminum plate which has a fine grain on it. The coating usually consists of a diazo chemical which is simply wiped over the plate with a lint free paper applicator. The plate dries in seconds and is then exposed. From there on it can be inked and developed with an acidified gum arabic solution. Or, some are treated as conventional presensitized plates, i.e. desensitized and then rubbed up with a lacquer emulsion. Others employ a combination developer and lacquer solution so that after exposure all you do is apply the developer and rub it down dry. Then the plate is ready for press.

The letterpress field has been justifiably excited in the past year by the development of the Dupont Photo-Polymer plate. Well, we have had a photo-polymer in lithography for several years, only ours is manufactured by Eastman-Kodak and is

called KPR, short for Kodak Photo-Resist. Its application has been somewhat limited by the necessity of solvent development but it is only a question of time before more suitable materials of this type become avail-

The most recent advance in surface platemaking is the use of a roller coating machine. The same metal and chemicals are used as those I described for the wipe-on diazo processes. The machine is a simple two-roller system with the bottom roller riding in a trough containing the coating. The plate is fed into the machine face down. The top roller controls the pressure and guides the plate through the nip. The coated plates are, in effect, presensitized plates and have a shelf life of several weeks or longer.

Deep-Etch Platemaking

In the field of deep-etch platemaking, the most important advances have been in the vast improvements made in all of the chemicals employed. The two items which have received the most publicity are the so-called "non-blinding" lacquers and the copperized aluminum plate. Lacquers bond better to copper than to aluminum, therefore it is advisable to treat the developed and deepetched plate with a chemical solution which plates copper in the image portions.

Recently the LTF has found that many of the deep-etching solutions leave a deposit of amorphous iron in the image areas. These deposits are what many platemakers have called "burnt metal." Our firm has recommended for quite some time that deep-etch plates be redeveloped after the deep-etching operation to eliminate these deposits. The Foundation goes a step further and recommends the use of a "Nicohol." (See June ML, page 58.) This is a 10 percent solution of nitric acid in cellosolve solvent. It is swabbed on the plate after the etch and completely removes any deposit.

This technique is very new and has not been completely evaluated as yet. Equally important as these developments but perhaps not as dramatic are the improvements in the formulation and manufacture of all chemicals used in the deep-etch process. These have had the effect of greatly reducing variables such as dark reaction and humidity effects. For instance, it has been discovered that one of the chief culprits leading to deterioration of deep-etch coatings has been the small amount of calcium contained in the gum arabic solution. This reacts with the gum in an alkaline medium, resulting in the formation of fine hard particles of calcium arabinate. Plates coated with such coatings exhibit a sandy appearance and in some instances poor contact with the positive is obtained. Not too many years ago we had more than 300 parts per million calcium in our deep-etch coatings. Today we know how to get rid of it and the standards for our deep-etch coating call for less than 10 parts of calcium per million. I could cite many other such improvements; suffice it to say that were you to get chemicals made as they were five years ago you would experience considerable difficulty.

However, we have not stopped with these improved chemicals. Both our firm and some of our respected competitors are looking for better products. We would like to get away from both bichromates and gum arabic. Along those lines, our firm is now testing a deep-etch coating which uses a synthetic colloid and uses a diazo compound as the sensitizer. Results are very promising and we hope to have it on the market before long. This coating would be used in the same manner as present coatings and would result in a true deep-etch plate. It can even be copperized. Furthermore, its use would completely eliminate dark reaction and humidity effects. Last week our laboratory took a plate out of file which had been coated over four months earlier and processed it in exactly the same manner as a freshly coated plate. (In Europe polyvinyl alcohol [PVA] has already largely supplanted gum arabic in deep-etch coatings.)

At the 1958 TAGA meeting in Los (Continued on Page 111)

Reproduction to Accurate Size

By Frank H. Smith
Development Department, The Monotype Corporation, Ltd.
Salfords, Redhill, Surrey, England

Part II

HAVING insured that the object, image and lens planes of the camera are truly square, by the method explained in the last article, we have now to check whether the camera is giving precisely the required size of image, in pin sharp focus, and to adjust it if not. In this discussion we are considering very accurate scale—not "spot-on" of course, because there is no such thing in practical work; it is always a question of how accurate—what tolerance is permissible.

Virtually all our scale focused or auto-focus graphic arts cameras are remarkably accurate when one bears in mind the manufacturers' problems. They can make them just as precise as may be required, but at commensurately higher cost, which increases practically geometrically with the amount of precision, and would be absurd for the general run of work where an accuracy of plus or minus 0.1 percent is considered very good indeed. So if we want greater accuracy than that—and it represents an error of .01 inch over 10 inches—we need to take special precautions.

Sharp Focus

First we must check the sharpness of focus. As many of us have discovered, there are plenty of difficulties in that seemingly simple point. For instance, it is a fallacy to believe that the most expensive "Apochromat" lens will produce the sharpest image in all circumstances. That is because many lens "corrections" are only compromises; one can often gain one virtue only at the cost of others. If we want the best possible definition and equal size in all of a set of color separations, a good Aprochromat lens is essential, but because it must be corrected for virtually all the common aberrations, and particularly chromatic (color) aberration, it may not have quite such a flat field, nor quite such critical definition as is obtainable (but for monochrome work only) with a good Anastigmat or even a Rapid Rectilinear. Indeed, some of my most successful very accurate "graticule" images (for the famous "gyro gunsight," made during the war) were shot with an 'R.R.,' but we were using blue sensitive "process" emulsions then. In these days, when we use the ortho sensitive "lith" emulsions, an Anastigmat is usually best for

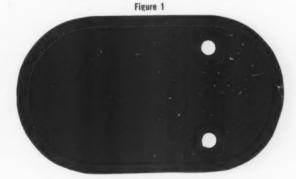
monochrome work, which includes almost all very close size work.

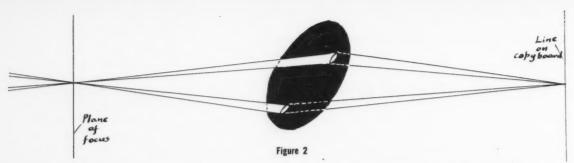
Most Anastigmat lenses are designed and made to bring the "visual" (middle green) and the "chemical" (far blue) foci to optimum focus and size in the same plane. If we intend to use "lith" emulsion (and we probably do) it is wise to use lamps with yellow filters before them (rather than a yellow filter in the lens) so that the green portion of the spectrum forms the image, and to consult with the lens maker upon whether he can make slight adjustments in the "setting up" of the lens to give slightly improved resolution in the green spectral band only. Using yellow light rather than a yellow filter in the lens is just a precaution to insure that the performance of the lens is not hampered by the presence of the filter.

Choosing the Emulsion

A trap which I fell into some years ago is that of testing for sharpness with lith emulsion. We may intend to use it for the actual work, but the "infectious development" phenomenon of lith material can produce a most misleading result and it develops so "all-ornothing" that a distinctly unsharp image may look deceptively sharp in the nagative. On the other hand, a fine line pattern resolution test can appear much less successful than it should if the exposure is not precisely correct and development just right to suit it.

A fine grain ordinary, ortho or panchromatic emulsion, according to the purpose of the test (probably





ortho in our present case), developed in fine grain developer, is therefore much the best for testing focus.

One of the best checks that the image is indeed situated in the plane of the photographic plate is to use a method which, I believe, was invented by that great American craftsman, Frederick E. Ives, half a century ago. One places in the "Waterhouse" slot of the lens a stop consisting of two holes as shown in Fig. 1. The two holes should be about 3/16" in diameter and one inch apart for a 25" lens, or 11/2" for a 36", so as to correspond with the diameter of a lens aperture of the order of f/22. If the stop is forming an image of a fine vertical line then, as shown in Fig. 2, each hole in the stop forms a narrow pencil of rays which should (if the lens is a good one) come to a point focus where they cross and form an image on the focusing screen (or on a photographic emulsion) of a single line. If the plane of the focusing screen or emulsion is forward or backward of the precise plane of focus, two lines will be formed.

It is best to scribe one long, fine line, crossed by a number of short lines, on a fogged, developed and dried photographic plate and then to make a number of contact prints, on dimensionally stable film, which can be cut into strips and taped into a fairly accurately rectangular pattern (not worth trying to be "dead accurate" because it is impossible anyway!) on a piece of glass laid in the copyholder or (in negative form) in the transparency holder. It is convenient also to have a strip of the test line vertically central and horizontally central in this test pattern. For checking size at the same time it is useful to mount an image of an accurate millimeter rule, also on stable base film, vertically near to the center of the test original and to retain two duplicate films of the rule for checking purposes later.

Setting the Scales

For the tests with a scale focused camera, it is useful to set it at the minimum size and to set the scales so that the object and lens planes are ¼" for half a centimeter, according to whether the scale is in inches or metric) nearer to the image plane than the "correct" distance on the camera chart and, for this first test, to place a 12" strip of plate centrally in the plate holder, but sloping backwards so that the top is ½" (or one centimeter) back from the proper plane, as shown in

Fig. 3. The top of the plate being effectively \(\frac{1}{4}'' \) back ward from center and the bottom \(\frac{1}{4}'' \) forward from center, a horizontal level, half way up the plate, should be at sharp focus and the image of the vertical line on the copy should break into pairs above and below that position. One can at once tell from the developed result whether the plane of sharp focus is correct or not and can adjust accordingly, if necessary.

For example, if the image on the developed test plate shows the position of focus at two inches above center (a third of the distance from center to top) then it indicates that the plane of sharp focus is one third of a quarter of an inch (1/12'') backward from the test setting which is itself already $\frac{1}{4}''$ forward; so the test setting is $\frac{1}{4}''$ plus $1/12'' = \frac{1}{3}''$ (.333'') backward from the test setting. Thus, one would need to move the lens plane and the object plane .333'' away from the image plane, when a plate, placed properly against the clips, should give one sharp image of every line of the (Continued on Page 102)

Image plane

Position

of focus

Lens axis

Centre of plate

Test plate



Why
the Future
of Web-Offset
Is Bright

By Olin E. Freedman

WEB-OFFSET is only now working up toward a momentum which will be accelerated even more sharply in the years immediately ahead. Several reasons can be advanced for such a conclusion and forecast

The other processes capable of producing work for which there is the widest and most rapidly increasing demand, have apparently failed to meet the situation successfully either in quality of work, or in control of costs of production.

Letterpress: 'Has Run Its Course'

Letterpress, the oldest and what might be termed the basic process of printing, seems to have largely run its course insofar as possibilities for improvement of quality, versatility and, most of all, control of costs are concerned. It might be stated with accuracy that letterpress has now matured, leaving few avenues for further development. Efforts to establish a centralized research and development agency, similar in purpose and method to the Lithographic Technical Foundation, have largely bogged down simply because it is impossible to discern any sound and reasonably promising objectives to which to apply such endeavors.

Speeds of sheet-fed flatbed presses are so slow in comparison with the rotary principle of offset that almost none is being manufactured or sold any longer, and two of the three principal domestic manufacturers of such equipment have now permanently discontinued production of virtually all models or will do so by the end of this year.

For rotary letterpress production, either sheet- or web-fed, the great amount of work which has been attempted in reducing the costs of both the pressplates and the long period of time required for press makeready has produced only the most meager results and appears to have come very close to exhausting all possibilities in that direction.

Gravure: 'Substantial Strides'

Gravure printing is undoubtedly making substantial strides and increasing its volume rather rapidly, but it continues to be plagued by many of the problems and shortcomings which have characterized its history since it was first invented about 80 years ago. Lack of uniformity and uncertainty about fidelity of reproduction continue to be major problems which are being solved only slowly. The cost of printing cylinders is extremely high in comparison with the methods used for applying ink in the other processes, with the result that gravure continues to be applicable economically only to extremely long runs.

The range of paper which can be handled with success continues to be relatively narrow. In general, gravure remains much more attractive in theory than in actual practice, and many buyers of printing who are initially attracted to it by what appear to be sound and logical claims find themselves disappointed.

Screen Processs 'Few Inroads'

Screen process printing, through sound mechanization of presswork in particular but also through improved methods of making screen stencils, has been gaining ground rapidly but continues to be suitable only for highly specialized applications, so different in their types of stock and in their uses that they are scarcely relevant to the matter under consideration. In general, it may be said that this process has broadened the scope of the graphic arts field and has led to production of types of work which would not otherwise have been produced at all, but that it has made few or no inroads into the fields served by the other processes.

Flexography: 'For Specialties'

Rubberplate printing, largely with "flexographic" or aniline inks, but also with conventional letterpress oil inks and with vapor-set inks, has been gaining a good deal of ground, but, because of inherent limitations, only in specialized applications. Foremost among such restrictions is



From a talk at Web-Offset Seminar of Lithographers and Printers National Association Convention April 13, at the Greenbrier Hotel.

the inability to reproduce with accuracy fine-screen halftones and small type.

Dry-Offset: Limited Use

Dry-offset, which was taken up by a small but enthusiastic group a few years ago and publicized far beyond the extent warranted by its true merits, has now largely run its course and fallen back to the level of being used for little more than the purposes which had been recognized for many years—production of overall backgrounds for safety paper, employing inks which would not work in the presence of the water for dampening of plates, and also the printing of a limited quantity of cloth covers for case-bound books.

Web-Offset: 'Continues to Grow'

Meanwhile, offset lithography continues to grow, and printing on webfed presses represents a constantly increasing portion of that growth. Technological progress has been rapid during recent years, and each new development seems to open up channels for additional important applications. The feeling is that further improvements will be made almost continuously available. (For example, at the annual meeting of LTF's Research Committeee earlier this year, new methods, approaches and controls were unveiled to an extent which led all present to the conviction that the scope of lithography had been materially broadened within the course of just the one year, with equally important innovations in the offing.)

The range of possibilities of the web-offset press has steadily broadened. Developments in platemaking, inks, blankets and drying systems have been and are slowly but steadily increasing speed of production and, perhaps even more importantly, making possible steady, sustained operation with fewer stops, resulting in reduction of spoilage and improvement of quality as well as a lowering of costs. Progress in platemaking methods, including both the presensitized and the polymetallic types, has not only improved quality and uniformity but has led to economies which make possible the competitive production of shorter and shorter runs on web-fed equipment. At the same time, the new methods have increased the life of pressplates to such an extent that they can prove to be as durable as those used for letterpress and gravure.

Dampening systems, as mentioned earlier, have undergone quite radical improvement, resulting in a further broadening of the range of stocks that can be handled successfully, a further reduction in spoilage, more prompt start-up, higher fidelity of reproduction and greater uniformity.

The web-offset press brings to the industry still another advantage which many have been quick to recognize. It is found in the ability to purchase initially a relatively simple machine for limited applications and then add units for additional colors, imprinting and numbering units, a folder, perforator, paster, sheeter, rewinder, etc., as the market for the product of the press either broadens or becomes more specialized.

The trend toward specialization in the industry has also supported the adoption of the web-offset press, for many printers find that the specialties on which they have been concentrating for some years can be produced with substantially greater economy, not only because of higher speeds but also because of the ability to complete numerous processing operations in-line on the press rather than to rehandle the stock and further process it on other equipment, as had previously been customary.

The experience of those who have purchased web-offset presses is illuminating. In almost every instance, if the decision to do so has been based upon careful analysis and judgment, the results have been successful and profitable, and it is safe to say that the majority have found their expectations of volume and earnings to be exceeded within a reasonably short time. I could cite a number of instances in which a press of this type was purchased for a specialized application or contract, with little expectation that other work would be available because

none was in evidence at the time. However, within a relatively brief period, it would be found that the machine attracted so much volume that it would be expanded. In some instances, additional presses would soon be installed.

There is perhaps one other interesting observation regarding weboffset printing.

For many years, up to comparatively recent times, it was believed that offset lithography presented its greatest possibilities, in competition with other processes, in its ability to produce excellent halftones, including color process work, on low-finish stocks. It was almost traditional that coated papers were seldom or never run in offset, and then only in coatedone-side for such products as labels to be varnished. During the period ending not more than 20 years ago, it was felt that high-gloss work on coateds was the logical field for letterpress, with the lithographer holding to the lower finishes, seldom higher than those to be found on stock sized and super-calendered.

Then, through various technological improvements by both the lithographer and the papermaker, it gradually became possible to do more and more difficult lithographic work on coateds. Equalling the standards and results of letterpress became a challenge for the lithographer who gradually became capable of matching and ultimately of exceeding them in many instances.

These developments in lithography came concurrently with those in machine-coated papers.

Having now met the challenge of letterpress standards and papers to a degree which is almost universally recognized, the lithographer is again turning to the resources which are unique in lithography, principally the reproduction of fine screen half-tone work in monotone and multicolor with high fidelity on noncoated stocks.

He is pointing out that he can duplicate or improve upon letterpress results if that is what is wanted, but that he can also offer something more, which may be even more de-(Continued on Page 109)

What's New In Photography?

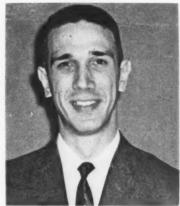
By John M. Lupo, Jr. Di-Noc Chemical Arts, Inc.

In the photographic field advancement in new procedures and processes has continued in the past year at a very rapid rate. Generally, we may divide these developments into three categories: new equipment, new products and new procedures.

1. New Equipment

In new equipment, we have seen in the past year a stress toward cameras with varied electrical operating accessories and also the use of special masking backs, ideal for certain procedures of color separation. One recent introduction of a small type vertical camera involves the use of a printed circuit principle for automatic focusing. To operate this, you merely set the desired percentage of reproduction on the camera dials and press a button which operates the printed circuit. The lensboard and film back then move into exact position.

The bottleneck, of course, in all photo operations, is that of processing the exposed film. The introduction of the Haloid Lithoflo Processor has greatly reduced this problem. The Lithoflo Processor is an automatic machine, capable of handling two 20 x 24" sheets of film, in one minute. This machine conveys the film through a developer short stop and fixer on a vertical endless belt operating in deep chemical tanks. Through its control of developer, temperature and time, it greatly aids



John M. Lupo, Jr.

standardization and increases production on all line and contact work.

In color work, an important variable is agitation given to a continuous tone negative during developing. The use of gaseous nitrogen burst equipment is common to the commercial processor of amateur film and it is just being accepted for graphic arts use. The principle of this procedure is to introduce nitrogen bubbles into the developer at a controlled rate. These bubbles of gas circulate the developer uniformly, thereby assuring accurate controlled agitation. I'm sure that you will see more and more of this type of equipment used for color work.

2. New Products

In the case of photographic chemicals, the most important change in the past year has been the acceptance on a very large scale of liquid type fixers. The simplicity of mixing these chemicals and their economy, certainly lend themselves for use in all types of shops.

Recent developments in the field of lighting for cameras are also noteworthy. In the past, we thought of exposing by the use of carbon arcs or some type of incandescent light. The adaptation of strobe light, common in amateur photography, has made its entrance into the graphic arts field, not only for camera use, but also for platemaking. This particular light, known as pulsed Xenon, operates on the same basic principle as a fluorescent tube. It is filled with a gas which glows by the use of electricity. The quality of the light in terms of color temperature is ideal for photomechanical use and the operation is such that it is free from fluctuations due to changes in line voltage, etc.

In addition to pulsed Xenon light, Colortran has marketed a converter which will control the color temperature of regular incandescent light. The application of this principle is to adjust the color temperature of the light to the type of copy you are shooting. In many instances, this will eliminate the use of contrast filters for black and white work.

With the temperature restrictions on the use of processing chemicals, temperature controlled sinks are becoming more and more common. One important application for this type of equipment, was the introduction of a sink with a flash heating control. Water coming into the sink is instantly heated to 68 degrees. These sinks are quite economical and within the price range of most shops.

Progress in new films has also shown remarkable advances. To be-(Continued on Page 107)

From a talk presented at New York Employing Printers Association Lithoshow, New York, May 2.

A Printing Buyer Answers Four Questions—

1. What makes a salesman stand out?

- 2. What pitfalls must a salesman avoid?
 - 3. What does a buyer look for in a salesman?
 - 4. How can a salesman get on the right side of buyer?

By W. M. McNeill Union Carbide Corp.

A GOOD buyer-seller relationship is the ultimate for which we are all working in the graphic arts. Under these conditions, I am sure that a salesman is desirous of being worthy of a great profession, and for my money a capable salesman is a professional man. He is certainly no amateur. As a buyer, I should have the proper understanding of his efforts so that I can intelligently weigh and evaluate the data that he brings to me.

It is only reasonable that a salesman craves recognition for his own ability. I am also human in wanting the same for myself as a buyer. However, these facts in no sense of the word should make us antagonists, for I have no desire to be made to look good at the expense of the firm or the salesman that calls on me. I should like to emphasize the point that I feel in my own case that I can succeed only if I make it sufficiently attractive for the salesman to call on me without hesitancy. A competent purchasing agent has more tools in his kit than a chisel.

Have you ever wondered what a purchasing agent expects from the salesman who calls on him? My views on the subject might be of interest, so I am going to pose four questions. Obviously, these ideas are not completely original with me, but I do feel that they cover sound ground.

1. What makes a salesman stand out? Those qualities that stand out

above all others are neatness, (not flashiness) confidence, reasonable aggressiveness, and most assuredly a working knowledge of his company, its products, and its natural competition. The salesman should be impressive, and I think that the Gillette slogan is applicable—"Look sharp, feel sharp, be sharp."

2. What pitfalls must a salesman avoid? Frankly, I heartily dislike a wise guy. Brashness, bluffing, belittling your competitor, high pressure selling, and trying to get around, or to actually endeavor to eliminate the purchasing agent in a transaction are current major irritants. May I emphasize that the salesman would be well advised never to make a proposal or a commitment that he cannot believe in, and to be sure within reasonable doubt, that it will be fulfilled in all its terms and conditions. An associate of mine has an expression - "Don't say it with flowers - Say it with figures."

3. What does a buyer look for in a salesman? Complete honesty regarding his own ability and the products of his company, a willingness to cooperate with his customer, and pleasant, gentlemanly manners are certainly major requisites for a good salesman. I am of the opinion that it is more dangerous to oversell a product than to undersell it, for if you undersell, you can lose only the order, but if you oversell, you can lose the customer and undo all that has gone before.

4. How can the salesman get on

the right side of the buyer? The rules are simple. Be willing to do what the customer wants, not what you prefer for yourself. Make it a point to give information in advance. It may cover new products, new ideas, a new pricing schedule, a more advantageous buying bracket, etc. If you offer something extra, either in better service, higher quality, or a lower cost (note I said cost and not price), you will ingratiate yourself with the buyer.

I am looking for low costs, not low prices, and I am sure that you can readily distinguish between the two. Remember the purchasing agent's job is, to the best of his ability, to buy without prejudice. He seeks to obtain the ultimate value for each dollar spent. It is only fair to assume that the salesman who does the most to help the buyer towards his goal will get the order.

If you know your product, know its applications, know its advantages, know its limitations, know its specifications, know its capacity, know its prices, and present your story to the purchasing agent in a friendly but forceful way, the order is yours for the asking, but don't forget to ask for it.

A salesman can render a more successful job on his "problem" accounts, if he will go out of his way to stress his organization's strongest features which can be beneficial to the customer. This he can do with the aid and cooperation of the management of his company.

From a talk presented at a recent meeting of the Young Printing Executives Club, New York.

There may be times when he is forced to bow out of the picture unless his management can come up with a better way to do it than has been done in the past. This type of diversification can well lead to profitable business that would not normally come to you. Now I grant you that this can be over done, for no firm is in a position to furnish every kind of operation desired, and when your representative tells your customer that his firm does everything well. he either does not know what he is talking about or marks his prospect down as a fool.

It occurs to me that it would be of value to you to know those items that we consider when making a purchase:

- Quality of product Is it adequate? Does it meet specifications?
- Availability of product Is it obtainable? Is there sufficient quantity to meet our needs?
- 3. Price.

You will note the order of consideration of these items. I suspect that this might surprise you, but I know of no large concern that is not willing to pay a fair price for a needed item, giving full consideration to all aspects. May I also point out that you personally control each item, for quality, quantity, and a fair price are up to you first.

A special phase of purchasing that is rapidly coming to the forefront in procurement activity is "negotiated procurement." This activity has recently been given considerable impetus by General Electric. They, of course, buy a number of components and assemble them into their equipment. As a consequence, the typical bid procedure which most of us probably abhor, means very little—there are better ways to get intelligent competition than letting every Tom, Dick or Harry take a crack at it.

My company also has explored the use of negotiated purchasing. There are times when it is most beneficial to all parties concerned. This is particularly true when you are faced with a tailor made item that really must be created from scratch. This

operation fits into the printing picture with such a completeness that it would seem advisable to me that you give it the fullest consideration.

Obviously, when something can be drawn up to a fine point, bids on something like an office form may make sense. But when a printed item is new in concept, it is virtually impossible to reduce it to a reasonable or simple bid procedure. In my own case, I have been working on battery labels for some 10 years. Approximately three years ago, it occurred to me that a metalized plastic label had potentialities for our use. As a consequence, our present silver cell label is actually an invention. I happen to be the coinventor of this item along with one of our development engineers, and we believe that it has a great poten-

Need I say that an item of this kind couldn't simply be a bid proposition. In this particular case, I knew what we were striving for and needed. I had to be familiar with the packaging field to know those printers who had facilities to produce what I needed. In this particular case, there were fewer than half a dozen self-contained printing operations in this country that could produce the item. I knew what we could afford to pay. I discussed the matter with our production group and advertising and marketing groups, and they told me what such an idea would be worth to them. The next approach, therefore, was to go to the best suited printer with the natural limitations that were dictated by our own needs.

I am sure as time goes on, you are going to see more of this rather than less, and the creative printer or lithographer who is in a position to negotiate with his prospective customer is in an entirely different bracket from the man who bids on something that is about to be reprinted.

It is my opinion that if you will take to heart the comments that I have made, your competitor will seldom if ever bother you, and you should get a higher percentage or return on your efforts.*

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Billboard Ban Discussed At Advertising Convention

By H. H Slawson Chicago Correspondent

THE federal government's efforts to restrict billboards along the interstate highway system, now under construction, came in for attention at the 61st annual convention of the Outdoor Advertising Association of America in Chicago last month.

The subject was brought up in a speech by Senator John Sparkman of Alabama, who had come from Washington to relate what Congress has recently done to improve the lot of the small businessman.

Knowing that the ban on billboards deeply concerned his audience, composed mainly of small businessmen, the senator bravely faced the ticklish issue and adroitly played it down.

The federal action to restrict bill-boards along the new highways, Senator Sparkman frankly admitted, might not be exactly helpful to the outdoor advertising business. He cited his own voting record which was against the amendment that holds out a monetary lure in the form of a one-half of one percent increase in federal funds for states that agree to take specified regulatory action.

"Congress," declared Sen. Sparkman, "had no conscious intention of working a hardship on any group of businessmen, much less those like yourselves. . . . Since probably few of you would deny that some reasonable controls are desirable, the question to be decided is the extent to which such controls are required."

Cure Worse than Illness?

"I have noticed," he added, "that, so far, only two states have passed legislation authorizing them to take advantage of this bonus. Frankly, I shall be somewhat surprised if this bonus mechanism does not create more problems than it may solve."

In attendance at the Chicago meeting, June 7-11, were nearly 1,000 representatives of outdoor advertising facilities in 15,000 U. S. cities and towns. "Outdoor Advertising in the Space Age" was advanced as the general theme of the convention at the opening session by Burr L. Robbins, convention chairman and president of General Outdoor Advertising Co., Chicago.

Further elaborating on this theme, Felix W. Coste, president of Outdoor Advertising, Inc., the national sales promotion branch of this medium, remarked that "We are doing business in the electronic era." Outdoor advertising, he aserted, "exemplifies the speed so characteristic of our times, when ideas are communicated almost with the velocity of light."

Explaining the plans and policies of the industry's sales agency, OAI, he said it has been revitalized to make it more efficient and more compatible with the times in the field of sales, research, promotion, advertising, creative art and industry and public relations.

'Pugnacious Drive'

While disclaiming any thought of selling outdoor advertising at the expense of other media, he served notice that the drive his agency will direct for increased national volume would be "pugnaciously" conducted by "a combat team with a killer instinct behind every move it makes."

All the media are "getting their lumps" from anti-advertising activities of the federal government, Frank Blair, widely known NBC television producer-director and news commentator, asserted, in a call for the end of "inter-media squabbling." So long as various competing media "continue to blast each other unmercifully," not very much can be accomplished in the way of self-regulation and public education to counter the government's hostility, he stressed. He called for a united front on a program of public education to explain the true value of advertising and its place in the national economy.

In the trade show, staged during the convention, Schmidt Lithograph Co., Milwaukee, was the lone representative of poster printing by offset. Otherwise, from the printing angle, the show at the Hotel Sherman was pretty much a silk screen printing process affair. This predominance of the silk screen printers might be attributed to their aggressive promotional efforts which have often gained ground when lithographers were not looking.

Well executed silk screen printed products, up to the standard 24-sheet poster size, were much in evidence around the exposition hall and, as one exponent of the process remarked, "You can't tell the difference from lithography." That, he claimed is "because both processes are identical up to the point where the job is ready for the press."

New Type of Poster

Something new in poster production was introduced by one exhibitor, Marcann Outdoor, Inc., of Opelousas, La. Shown in their booth was a huge "spectacular" with four-color silk screened design, brilliantly lighted from the back. The copy, a representative explained, is printed on a thin, transparent plastic film which has a pressure sensitive adhesive back. This printed film is applied directly to the translucent plastic panel forming the back-lighted unit, resulting in an "unbelievable" brilliance and depth of color. As an added touch, a border of plain reflective sheeting may be used on the billboard.

(Continued on Page 105)



Frank P. Hogan (left) and Jack Kaus manage their fast-growing firm from adjacent desks. (Wine bottles are part of P-0-P display.)

At Hogan-Kaus Lithographic Co.,

Service Comes First

By Ruth Teiser and Catherine Harroun

IN February of 1957 Frank P. Hogan, 33, and Jack Kaus, 26, scraped together \$1,500 and established a lithographic firm in San Francisco. They hired a pressman, leased a 17 x 22" press, and set out at full tilt to find jobs for it.

"We thought we'd be lucky if we did \$2,000 worth of work a month," Mr. Hogan recalled in some amazement. "In 1958 we did just under a quarter of a million dollars."

In February, to celebrate the firm's second anniversary, Hogan-Kaus Lithographic Co. snarled traffic on San Francisco's busy Second Street long enough to swing a 35×45 " Harris press up through its third-floor pressroom window. There it joined two ATF Chief 29's, a Chief 20 and a Multilith, and immediately went into two-shift operation on a couple of rush jobs.

"We're fitting this press into our plan for fast service," Mr. Kaus explained. "Most of the small shops in town don't have this size press, and the big plants that do can rarely move fast. But we're keyed to advertisers' deadlines."

Fast Service Is Key Factor

Fast service is a major factor in the Hogan-Kaus success story. In these days of rising labor costs, many a graphic arts firm has put great effort into "educating" customers to plan ahead and avoid rush jobs. Not so Hogan-Kaus. They go along with their customers. "Both Frank and I understand the importance of time in adver-

tising," Mr. Kaus said. "Most of the advertising production men we work with are young and willing to work day and night to get a job out. We are too. We understand them. When a buyer says Thursday at 3 we know he means it and why. And just as important, the men in our plant know he means it. We've taken our men out to see what goes on in the agencies and advertising departments that we do work for, so they understand why these people are in a hurry."

Fast service requires extra energy and extra hours. Both are routine at Hogan-Kaus.

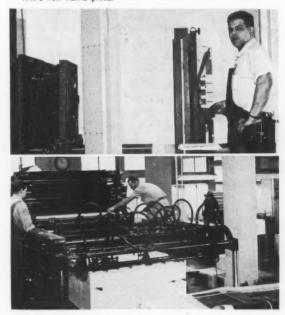
"Frank and I each put in about 70 hours a week," Mr. Kaus estimated." Frank gets here at seven in the morning and I stay until seven in the evening. As a matter of fact, we do more business after five o'clock than we do all day long. The phone rings almost continually from five to six.

"We have a wonderful crew," he added.
"They're enthusiastic and willing to put in overtime. So
we're able to turn out rush jobs when necessary."

Both Hogan and Kaus give much credit for the firm's success to their enthusiastic and skilled production workers. "We have a tremendous amount of teamwork here," is the way Mr. Kaus puts it. "We offer our men good wages, a pleasant place to work, and a chance to think for themselves. They in turn have a feeling of belonging and are willing to take responsibility. We have very little turn-over, although when we take on a new man we often try out a number of people before we find the right one.

(Continued on Page 103)

Cameraman Bernarr Walzberg (top) expected to handle Hogan-Kaus work in three days a week. Now he works five days, with plenty of overtime. Jack Palmer (bottom right) sets a roller on firm's new Harris press.



TECHNICAL SECTION



Paper Research at Bureau of Standards

During the past half century, standard test methods to evaluate paper and specifications for paper products have been established at the National Bureau of Standards in the interests of government, science and industry. Experimentally produced in the paper mill at the Bureau were glass-fiber papers, now extensively used for atmospheric filters. A few years ago when the deterioration of the Declaration of Independence and the Constitution caused concern, Bureau scientists devised a method to preserve these documents for future generations. Inorganic and synthetic fibers or non-fibrous materials are increasingly used today for making special-purpose papers. Present Bureau research will help to solve many of the problems presented by these new trends.

THIS year marks the fiftieth anniversary of paper research at the National Bureau of Standards. In 1909 the Bureau first set up a laboratory to determine the physical and chemical properties of paper. Over the past half century a great many instruments and test methods have been developed to measure these properties, providing a firm basis for purchase specifications that are used today for paper and paper products.

When the Bureau began this program, the paper industry was relatively undeveloped. But today the pulp and paper industry is one of the largest in the country. More than 30 million tons, valued at \$10 billion, are produced annually. Per capita consumption exceeds 400 pounds a year. The government alone buys more than 200 kinds of paper annually for its own purposes at an estimated cost of \$100 million.

As the paper industry has developed, the character of the Bureau's program has changed. Less emphasis now is placed on developing test methods and paper processes. Current paper research, under the direction of Dr. R. B. Hobbs, seeks to provide basic information on the properties of cellulose and other polymeric substances from which papers are made. Such information is used to improve the mechanical, optical, and performance qualities of paper. Studies are also being conducted to develop standard reference materials, with known physical properties, such as tearing strength or folding endurance, which can be used in calibrating commercial testing instruments. Thus, the paper research program is continuing to play a significant role in the advancement of paper technology.

Physical Properties

To obtain the best results in service, the physical properties of paper must be closely controlled. In print-

ing papers, for example, brightness (a measure of apparent whiteness), opacity (related to "see-through"), and gloss are necessary optical properties. Good folding endurance, and bursting and tearing strengths are needed in many types of paper designed to give service for an extended period. Food-packaging papers and building papers must be impermeable to water, air and water vapor. Ready absorption and softness are essential characteristics of facial tissues.

An important attribute of papers processed through packaging machinery, or used for magazine covers, paper boxes, and the like, is stiffness. A method and apparatus were developed for measuring stiffness, and the equipment is now available commercially. In this device, a specimen is bent through a given angle, and its stiffness is measured as the torque in a wire suspension. By varying the size of the supporting wires and the angle through which the specimen is bent, papers having a wide range of stiffness can be tested.

Smoothness is a factor used to determine the printing quality of paper. In a comparative study of two paper smoothness testers, the first practical application was made of the "sensitivity criterion." With this concept the relative merit of the two instruments is compared by the ratio of their sensitivities. The criterion is especially useful when no absolute standard of comparison is available and no simple proportional relationship exists between the results

From a summary technical report of the National Bureau of Standards, U. S. Departure of Commerce.

Chemco MARATHON

ALL NEW 24" x 24" ROLL FILM CAMERA



Now, for the first time, engravers and lithographers can make contact screen halftones with roll film speed and economy in a 24" camera.

The new Marathon is based on the proven design of Chemco's famous Model F Series roll film cameras but incorporate these outstanding advancements:

- Holds two screens in any combination of the following: Rectangular—up to 24" square Circular—up to 23½" diameter Contact—automatic, up to 18" x 22"
- · Has single knob film control
- · Has new guillotine type cut off knife
- · Has simplified diaphragm control
- Restyled with all controls designed for maximum operating simplicity
- · Color accessories available

Let us prove to you that the Marathon camera, through roll film speed and economy, costs less to own and operate than any other camera of its size.

AUTOMATIC CONTACT SCREEN MECHANISM, an exclusive Chemco development, saves time, eliminates handling and increases screen life.

See the new MARATHON

ANPA Mechanical Conference—Chicago Graphic Arts Exposition—New York APEA Convention—Dallas NAPL Convention—Kansas City



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Handsheet apparatus (left) used at the National Bureau of Standards for preparation of experimental papers. The operator raises the cylinder, containing a measured amount of aqueous pulp suspension, to remove

the formed sheet. A miniature Fourdrinier (center) paper-making machine. In NBS experiments to determine the effectiveness of lamination with actate to preserve historical documents, a flat press (right) is used.

obtained with two different instru-

Some government departments have unique paper requirements. Perhaps the most obvious example is the paper used for making United States currency. Other examples are high wet-strength map papers and postage stamp papers. A new process of dry intaglio printing recently installed at the U. S. Bureau of Engraving and Printing required a paper soft enough to reproduce the fine lines of the engraving plates yet durable enough to last at least as long as currency printed by a wet intaglio process.

NBS devised laboratory tests to evaluate experimental papers submitted by the industry, and the results were used to select a paper for wide-scale production. A statistical study is now being made to compare the durability of the new and old papers in actual use.

Map papers for the military services must be exceptionally resistant to hard wear because of the excessive folding, crumpling, soiling and extreme weather conditions to which the maps are exposed. During World War II, the Bureau worked with the Army and paper manufacturers to develop a paper with high wet strength and other durable properties. By incorporating synthetic resins in the paper mixture, the desired result was achieved.

One of the first studies on the physical properties of paper was made by Dr. D. E. Douty of the paper laboratory. His report on the bursting strength of paper was pub-

lished in 1910. Since then a large number of Bureau reports have been published on the physical properties of paper and standard methods for measuring these properties.

World War I brought about activity in the preparation of government specifications, and the need for new paper specifications increased considerably in the 1920's. During this period the late B. W. Scribner, then chief of the paper laboratory, was appointed chairman of the interdepartmental committee for federal specifications. Pioneer work was accomplished in preparing specifications for more than a hundred different kinds of paper. After World War II, however, administrative responsibility for this function was transferred to the General Services Administration.

In the period from 1920 to 1935 considerable effort was spent in investigating the materials and processes used in industrial papermaking. The program was undertaken to assist in developing a strong American industry by reducing the nation's dependence on sources of supply outside North America. The requirement for this work diminished as the industry grew and prospered, and as university and commercial laboratories took over the necessary investigations.

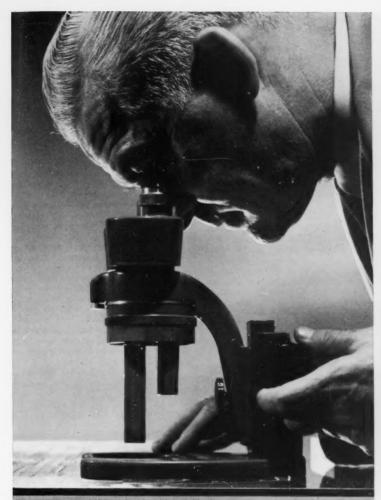
Chemical Properties

The utility and value of paper for many of the ways in which it is employed depend on its chemical stability and, consequently, on the stability of cellulose, its major constituent. For example, U. S. Supreme Court Reports are printed on a paper consisting of 100 percent new cotton fibers. The paper is processed with special care to minimize residual chemicals so that the Court's decisions will be available for centuries in permanently bound form. A knowledge of the chemical structure and reactions of cellulose is basic to the manufacture of paper requiring such a high degree of durability, as well as to the preservation and storage of historical records.

For several years the Bureau has investigated the chemistry of cellulose, particularly its degradation by environmental conditions. Studies have been made of oxidation with periodic acid, reaction with sodium chlorite, thermal degradation and degradation by ultraviolet light. Among the analytical methods that have been investigated are those for copper number, alpha, beta and gamma cellulose, pH and functional groups in cellulose.

Recently, research has been conducted for the Army Engineer Research and Development Laboratories to reduce the hygroscopic expansivity of map paper, and thus improve its dimensional stability for reproducing several colors in successive printings. The two most promising processes found—lamination with a polyester film, and use of synthetic organic fibers in the paper blend—are too costly for immediate practical use. However, it is anticipated that fundamental research now in progress on the nature of resin-to-cellulose bond-

(Continued on Page 107)







New Kodalith Ortho Type 3 Emulsion now on glass plates

A look at your camera work with this wide-latitude emulsion and your experienced eye tells you that this is the greatest improvement upon glass since Kodalith Ortho Plates

You'll see that this emulsion is versatile enough to handle any kind of copy, regardless of its contrast range. You'll see beautiful results, line or halftone.

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The same good results no matter what you're reproducing.

But there's more to Type 3 than meets the eve.

Plate-after-plate Kodak uniformity, for instance. Uniformity that comes from stringent personal attention to quality-producing details. Uniformity you can't see but which you know is in every Kodak emulsion, to give you consistently good results. Results you can predict today, tomorrow, next year-any time.

Become familiar with Type 3 emulsion, on plates or on a variety of film supports. The same good results on any support. You'll find Type 3 fits your techniques, eliminates guesswork, seems to cooperate with you more than other emulsions do-to give you fewer disappointments than you've ever had before.

What base suits you best? Plates, any size, .060" to %6" thick. Stable PB, regular or thick base. Acetate, regular or thin base. And these are only the

beginning . . . Want a demonstration? Write:

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Kodak

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Photography, Tone and Color Correction

ELECTRONIC COLOR SCANNING AND ENCRAVING. Part 1. Samuel W. Levine, Gravure, Vol. 3, No. 7, July 1957, pages 12-15, 44-46, 7 pages. A review of the activities of all known companies working on development of electronic color scanners and engravers for the graphic arts field. A brief outline on why this equipment is needed. Charts showing comparative specifications on each machine are included. In addition, activities of several companies working on direct electronic engraving and similar devices are reviewed. Diagrams of the following:

Fairchild Scan-a-Graver Hell Klischograph Fairchild Scan-a-Sizer Fairchild Color Scanner Time, Inc. Color Scanner

ELECTRONIC COLOR SCANNING AND ENGRAVING. Part 2. Samuel W. Levine. Gravure, Vol. 3, No. 8, August 1957, pages 16-8, 46, 48, 5 pages. Conclusion of article started in July 1957. Diagrams of the following:

Hunter-Penrose Autoscan
Interchemical — RCA — Donnelley
Color Scanner

Crosfield Scanner

ANALYTICAL RECORDING DENSITOMETER. W. E. White and C. A. Morrison. Photographic Science and Engineering 2, No. 3, Oct. 1958, pp. 164-169 (6 pages). A completely automatic recording densitometer, based on the indirect method of measuring respective integral color densities and converting them to analytical densities by computation, is described. The equipment delivers complete measurements from a 21-step sensitometric strip in 100 sec. with a performance accuracy of better than 0.01 unit of density.

Modern Techniques in Masking for Offset. Gyan P. Madan. Inland and American Printer and Lithographer, Vol. 142, No. 2, November 1958, pages 56-8, 3 pages. The first of a series on modern masking. Copy, inks and contact positive masks are discussed. Flow diagrams illustrate unmasked and masked results.

Planograph Printing Processes

*ARYL AZIDE PRINTING PLATES. U. S. Patent 2,848,328, 96/91, 6/16/54-8/19/58. M. Hepher to Eastman Kodak Company. Ansco Abstracts, Vol. 18, No. 9, September 1958, page 376. Coatings consisting of casein and a rubber latex are sensitized by

aryl azides. Corresponds to British Patent 763,288 (abstract 209/57).

*Method of Deoxidizing an Aluminum Surface. U. S. Patent 2,867,514, September 12, 1955. Nelson J. Newhard, Jr. and James H. Thirsk, assignors to Amehem Products, Inc., a corporation of Delaware. Official Gazette, Vol. 738, No. 1, January 6, 1959, page 162. 1. The method of treating an aluminum surface which consists in subjecting the surface to the action of an aqueous acid solution consisting essentially of hexavalent chromium and fluoride, the quantity of hexavalent chromium being from 10 to 100 grams per liter and the quantity of fluoride being sufficient to give a bath activity at least as great as a solution of:

Chromic acidgrams 30 48.8% hydrofluoric acid....milliliters 0.25 Water, to make 1 liter

but having no more activity than a solution of:

Chromic acidgrams 30
48.8% hydrofluoric acid...milliliters 1
Water, to make 1 liter.

the pH of the solution being between 0.5 and 1.0, and the treatment being continued until the surface is deoxidized.

Paper and Ink

AN INK APPLICATOR FOR SUPPLYING INK TO THE DISTRIBUTOR SYSTEMS OF PROOF PRESSES AND OTHER LABORATORY PRINTING DEVICES. W. A. Wink, TAPPI 41, No. 12, December 1958, pp. 796-800 (5 pages). An ink applicator designed to supply ink to the distribution system of laboratory presses and other printing devices in a uniform and reproducible manner is described. The applicator is of the volume displacement type and the metering action is sufficiently accurate to restore ink to the press in a reproducible manner following each print. By virtue of this uniform application of ink, the distribution time between prints can be reduced significantly. The principle of this applicator is illustrated by a particular application to a No. 4 Vandercook proof

HYPOTHESIS ON THE MECHANISM OF INK SPLITTING DURING PRINTING. James H. Taylor, Jr. and Albert C. Zettlemoyer, TAPPI 41, No. 12, December 1958, pp. 749-757 (9 pages). Previous experimental studies of the transfer of ink from plate to paper have shown that the total quantity of ink transferred consists of two portions: that immobilized by the stock while the ink film is under pressure; and that portion of the free ink film which splits toward the stock as the stock and plate separate. The position of split in the free film is closer to the stock than to the plate, and varies with ink and stock properties. At the moment of impression, the ink film is subjected to pressure, temperature, and shear rate gradients in the nip between plate and stock. Because of the sensitivity of ink viscosity to temperature and shear-rate variations. these gradients cause local regions of reduced viscosity which control the point of film split.

(Continued on Page 102)



CONSISTENT, DEPENDABLE PERFORMANCE — with Crescent's Spectrum Service

With Crescent's Spectrum Service using Spectrolith Offset Inks, you can match colors perfectly every time. Crescent gives you any formula you need along with the basic set of inks. Or you can start by buying any quantity of individual inks. Crescent's Spectrum Service is an economical, proved way to custom-blend that reduces press down time if you run out of inks, and costly waiting for color okays. Get the complete story; just drop a note on your letterhead for free color sample book and details on how Crescent can help you match colors exactly, time after time.



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Look to Crescent for Ink Leadership

Inks for Letterpress-Lithography-Flexography-Rotogravure

PHOTOGRAPHIC CLINIC By Herbert P. Paschel Graphic Arts Consultant

Calculating Screen Distance; Shooting Duotones

- Q: I have several questions on screen distance using glass screens.
- 1. How do I calculate and measure screen distance using a 64 or 90 ratio?
- 2. How should I set the screen distance indicator—to the theroetical distance or to the actual separation between screen and film?
- 3. How can I calculate the correct screen distance for a 50 percent reduction?
- 4. How much variation in screen distance is possible before the dot structure suffers with a 133-line screen? . . . With a 300-line screen?
- 5. How do you set a screen by eye?

E.B.N., BROOKLYN

A: 1. With the ratio system, the theoretical screen distance is calculated according to a very simple rule, namely—the ratio of the size of the screen opening to the distance of the screen from the focal plane must be the same as the ratio of the diameter of the stop to the camera extension.

Assuming you decide to use the 64 ratio, the screen distance would be 64 times the screen aperture and the lens opening for the main exposure would be 1/64 the camera extension.

The screen operture on 1:1 screens is always one-half the stated screen ruling which, in the case of a 133-line screen would be 1/266. Multiplying this by 64, we get 64/266 or, roughly, 15/64.

This figure is the theoretical distance between screen ruling and film.

It is impossible for Mr. Paschel to give personal replies by mail, but all questions will be answered in this column as soon after receipt as possible. The columnist also is available to the trade as a consultant for more complex litho problems.

Since an engraved screen is a laminate of two pieces of glass, the thickness of the cover glass must be subtracted from the calculated distance in order to obtain the physical separation, or air space, between the outer surface of the cover glass and the focal plane. The thickness of the cover glass is usually engraved on the cover glass side of the screen, which also indicates the side of the screen that should face the film.

However, the distance the light travels within the cover glass is slightly greater than the thickness of the glass. Thus, if the total cover glass thickness were to be subtracted from the calculated distance, the actual distance between ruling and film would be greater than desired. For this reason we subtract only $\frac{2}{3}$ of the cover glass thickness to establish the separation between screen and film. This is then measured by screen gauges, wedges or other suitable means.

I would like to point out that the operating characteristics of a screen may differ from the theoretical concept and may require greater or lesser distance than that calculated. The adjustment necessary in such cases will be self evident from the practical results.

- 2. The screen distance indicator may be set either way - it is immaterial which way you select as long as you know what it means. The indicator, if accurate, is a reference point which permits you to increase or decrease screen distance without resorting to physical measurement. If you use a number of screens interchangeably, and these all fit into the screen holder bars in the same plane, it would be convenient to set the indicator to read the actual air space distance. Then, regardless of which screen you used, you could rely on the indicator to set the desired screen distance.
- 3. The ratio system is intended to be used with a constant screen distance. The size of the stop should be changed to the correct ratio when the distance between lens and film changes. This arrangement also permits maintaining a reasonably constant exposure time regardless of focus, all other factors being equal. If you change the lens aperture from the established ratio, you must first determine what the new ratio is and then calculate the new screen distance and adjust the screen accordingly.
- Permissable tolerances in screen distance are very limited and become more critical as the screen ruling becomes finer.
 - 5. Setting a screen visually is done

in the following manner. An adjustable magnifier is placed against the outside surface of the ground glass on a clear spot and focussed on the inner surface. The camera lens is set to the main (middletone) opening normally used. With a piece of white paper in the copyboard and the lights on, the pattern produced at the focal plane is viewed through the magnifier. The screen is adjusted until an elongated diamond shaped dot pattern is seen in which the points of the diamonds just about touch one another. The best way to appreciate what this looks like is to inspect the pattern created by a number of screens known to be set correctly.

Since many problems connected with halftone photography are due to factors other than screen distance, apertures, and the like, I would like to suggest you read "Variables In Photography" which appeared in ML in the January and February issues.

Duotone Negatives

Q: In shooting negatives for a duotone print are both colors shot the same or is the underlying color made differently? I mean as to the size of the highlight and shadow dots, etc.

N.E.B., GRAND ISLAND, NEB. A: As has been mentioned in this column previously (April, 1959), the term duotone is loosely used and does not define a specific combination of images. In order to answer your question let's first outline three possibilities. First we have the combination of black and a color. Next in popularity and usage is the combination of light and dark images of the same color (hue). Finally, there is the true, two-color arrangement in which pairs of contrasting (complementary) colors are used. In the latter case, the two negatives would most likely be indentical in tone scale in order to maintain the neutral scale throughout the entire brightness range as well as to avoid hue shifts.

In the first two systems, the dark, or key image is of normal, or slightly higher than normal contrast. The secondary image is generally fuller but of considerably lower contrast. These are the general principles. The precise relationship between the two halftones may deviate from this in accordance with the colors involved, the paper used, the subject matter and the effects wanted.

Book Review

Basic Photographic Chemistry, Keith M. Hornsby, The Fountain Press, London, Rayelle Publications, 76 West Chelten Ave., Philadelphia 44, Pa. 158 pp., \$3.95.

In view of the widespread use of packaged chemicals, more and more photographers learn and pursue their craft with only the vaguest idea of the chemical reactions involved. But the time comes, sooner or later, when a detailed yet simple understanding of photographic chemistry is necessary to analyze and eliminate any number of processing problems. To provide a relatively simple outline of the basic principles of the chemistry of photography without being merely superficial is the intent and the accomplishment of the author of this book.

The subject is approached by first reviewing chemical principles in general. From there on the author becomes specific and covers emulsions, sensitizing dyes, developing agents, the development processes, fixation and washing. After-treatment, such as intensification, reduction and toning processes are discussed in two chapters. Another chapter deals strictly with color development such as is necessary with color films and print materials. The chapter on miscellaneous processes covers such methods as reversal processing, blue-print and diazo materials, carbo and imbibition color print systems, etc. The final chapter deals with the many aspects of solution preparation.

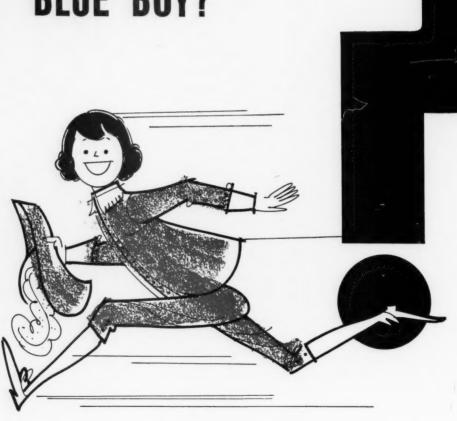
While not worded in everyday language, the presentation is easy to understand and the author endeavors to explain the more unfamiliar terms. For the photographer who wants to know what actually takes place in the solutions he works with, this book will unveil the mystery.

Donaldson Sign Re-elects Officers

Donaldson Brown, president, and all other officers of the Donaldson Art Sign Co. in Covington, Ky., were reelected by the board of directors in June.



WHAT'S
THAT
RUNNING
ALONGSIDE
BLUE BOY?



(MORE NEXT MONTH)

PRODUCTION CLINIC



What Causes Variations in Printing?

By Frank Arbolino Dexter Press, W. Nyack, N. Y.

THERE has been much discussion recently concerning the causes for the variations in density between front and back ends of an impression in the printing of solids. It is generally understood that on some presses the print is stronger on gripper edge.

Uneven Printing

The fact has been brought out that the heavy printing area changes in position under various conditions. In other words, the heavy print sometimes appears at the back of the sheet instead of the front end. The size of the heavy area also varies, depending on the cause. Sometimes the rollers pick up extra ink when going over the gap between back and front edges on the plate. As a result, the rollers deliver a heavier charge of ink to the plate during the first revolution. At other times both back and front edges print heavy while the center portion prints light.

If the form rollers are set too light to the rider or distributing roller, you will get a dark area on the front portion of the plate with a definite change in tone at the end of this area, corresponding in size to the form roller circumference. For example, if a roller were nine inches in circumference a streak would appear after the first turn of the roller, measuring nine inches from the front end of the plate. It is also quite possible that the timing of the ink

ductor is such that a fresh charge of ink is delivered to the roller at wrong intervals. If this is the case, the degree of tone variation will change with the various fountain settings.

To illustrate: with the fountain keys open wide and the fountain roller set at one or two notches, the difference in color or tone would be greater than if the roller were set at 10 or 12 notches and the fountain blade set close.

Thick and Heavy Print

When an offset job appears heavy or on the muddy side of tone values, the cause of the trouble may not be revealed upon examination of the dots on the sheet. In such instances the dot is not distorted to the point of being long or blurred.

Actually when the printed result has a fatty appearance it is an indication that no one thing is wrong with the press or setting but several minor adjustments are required to eliminate the trouble. Following is a check-list of items that should be investigated to remedy this condition:

- Blanket should be washed with a good solution, one which will evaporate quickly.
- 2. Be sure blanket is tight enough and that it is cut square as well as mounted squarely on blanket bars. It is also important that the holes in front and back ends of blanket line up properly. There should not be excess pressure between plate and blanket.

- 3. Pressure between blanket and impression cylinder should be sufficient to allow each sheet to lift the ink properly from the blanket.
- 4. Form roller settings should be checked carefully because when form rollers are set too lightly against riders or driving rollers, a thick or muddy print will result.
- 5. Dampeners should be set tight enough to the brass or water distributing roller so that they turn at proper surface speed, especially when using paper covered dampeners.
- Water on the plate should be kept at a minimum, because an excess of water can be the cause of a fatty looking print.
- When using presensitized plates, do not soften the ink too much and be sure not to overcharge the inking rollers.
- 8. When a dry-up occurs it is better to stop the press and gum out the dried up part of the plate, than to put water on the dampeners.

What Makes Ink Collect?

Q: I would like to know the reason for ink collecting on the brass roller.

A: Ink collecting on the brass roller is not uncommon in offset printing, but it does not occur generally on very light forms. An excess of ink run on the press is the main cause of this trouble. However, if an excessive amount of thin varnish is used in the ink, it will pile on the dampeners or brass roller.

(Continued on Page 107)

LITHO CLUB NEWS

Washington

Joint Meeting Held

The Washington Litho Club held a joint meeting with the Graphic Arts Association of Washington, D. C., Washington Club of Printing House Craftsmen, and the Washington Suppliers Guild on May 26.

Albert L. Tucker presided over the business meeting for the litho club. Clarence E. Harlowe, president of the Graphic Arts Association, presided over the GAA's 2,070th consecutive weekly meeting. Edgar Walker of the Supplymen's Guild conducted his organization's business meeting. Raymond S. Via, president of the Craftsmen's Club, called together his club for a brief meeting at which time nominations for their new officers were read.

The Washington Litho Club and the Printing House Craftsmen each inducted five new members.

Raymond L. Blattenberger, U. S. Public Printer, was featured. He spoke on "Technology and Research Are Essential to An Indispensable Industry."

"As evidence of the importance attached to research and the development of technological improvements in the entire printing industry," he pointed out, "hardly a month passes without notice that a new branch of the graphic arts is establishing a research project or broadening studies already started. It is always better to apply teamwork to a larger problem than to try to get it done by sporadic individual effort.

"Everybody uses printing," he said. "Increased costs fall on everyone just as surely as death and taxes. Conversely, the benefits of efficiency and economy in the industry fan out everywhere and touch every home, every member of the population.

"As a profession," he continued, "printing is as essential as law or medicine, and the men and women in these other professions owe to the printing press a great debt for their proud positions in this civilized world.

"As a trade, printing's place in our marvelous day of mechanical wonders is no less than that of construction, or steel, or automotive building, or husbandry, or any other trade.

"Printing is essential to modern living," concluded Mr. Blattenberger. "The printer's influence in what we eat, what we wear, where and how we live, what we think, even how we worship, is greater than most of us realize."

Cincinnati

"Problem Night" Program

The Cincinnati Litho Club held a closed dinner meeting on June 9 in the Golden Goose Inn, Park Hills, Ky., with 35 members present. The "Problem Night" program, staged several times yearly, was monitored by Buford Payne, Tri-State Offset Co. Panel members and their topics were:

Camera, Alfonso Lammier, U. S. Printing & Lithograph Co.; plates, Frank Petersen, Standard Publishing Foundation; stripping, Kendel Rece, Gibson Art Co.; and press, Harmon Taylor, Tri-State Lithographers, Inc. Others who answered questions included James Macke, Macke Bros., and Martin Vander Molen, Standard Publishing Foundation.

More than 200 members, their wives, families and guests enjoyed an annual Ohio River moonlight boatride on June 27, with Robert Crooker, Strathmore Press, in charge of arrangements. On Aug. 1, the club's annual all-day picnic will be

held at suburban Lauthmann's Grove, with nearly 1,000 persons, including members, their families and guests attending. Harold Knippenberg, Advance Decalcomania, is the arrangements committee chairman.

St. Louis

Looking At Web-Offset

Arthur R. Bink spoke on "Let's Look at Web-Offset," at the June meeting of the St. Louis Litho Club.

Mr. Bink is regional director of the web-fed press division of American Type Founders Co., Elizabeth, New Jersey.

At the meeting the club presented Donald Bastion with its 1959 scholarship award toward a career in the lithographic industry. Mr. Bastion is a student in the lithographic department of the David Ranken School of Mechanical Trades.

Allan Renda and Oliver Schuermann were awarded silver lapel pins for service to the club.

New members are Herbert Dean, James E. McGilligan and Frederick Bachofer.

The annual stag barbecue of the club will be held at Tilles Park, Saturday, August 8.

Twin City

'This Business of Paper'

The Twin City Litho Club last month heard A. B. Blackwell of the Hammermill Paper Co., who discussed the many factors involved in price, quality and distribution in the paper industry. He also discussed (Continued on Page 65)

A. B. Blackwell addresses TCLC

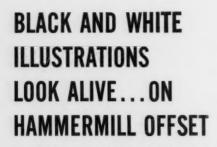


COME ON IN... THE PRINTING'S

Hammermill Offset invites readers to plunge into your printed pieces. It adds realism to the products it shows, puts sell where sell should be. Hammermill Offset takes beautiful black and white printing, too. Please turn the page to see.

FINE ON HAMMERMILL Super OFFSET







SOONER OR LATER THEY ALL SWITCH TO ALUMINUM LITHO PLATES American Heritage, brilliant magazine in book form, presents our country's history with impeccable scholarship—and brings its subject alive for today's readers with fast pace and striking color. Offset lithography-for covers and special inserts -plays a part in making each issue a graphic masterpiece. To meet this publisher's rigid standards (as tough as any in printing today), the lithographer switched to litho plates of Alcoa Aluminum. Please turn the page for more details.

AMERICAN HERITAGE...

Good reason why Herst Litho standardized on plates of Alcoa Aluminum

Few magazines or books have stirred as much discussion as American Heritage since its appearance in 1954 as "a magazine in book form." Contents are varied and extensively illustrated (like a magazine), but bound in hard covers. Following the same format, American Heritage Publishing Co., Inc., launched Horizon, a

magazine of the arts, in 1958.

Litho plates of Alcoa® Aluminum play an important role in making each issue of both a library piece . . . superb examples of the printing art. Covers of American Heritage and special multipage inserts in American Heritage and Horizon are offset printed by Herst Litho, Inc. Lee Coleman, Herst vice president, writes, "To insure the consistently high quality demanded by American Heritage, we have standardized on deepetched plates of Alcoa Aluminum."

Today, the overwhelming majority of printers with exacting litho assignments have switched to aluminum plates. Aluminum takes a fine, sharp, deep grain . . . permits a finer screen . . . requires less water, ink and pressure . . . gives clean, sharp impressions with good color "punch" on longer runs.

Aluminum made possible the remarkable presensitized plate, which eliminates coating equipment, requires less exposure time, produces top quality printing. Lower cost and faster processing make the presensitized plate first choice for a surprising number of jobs.

Alcoa pioneered the development of aluminum for lithographic plates and today offers uniform lithoquality sheet and foil for this application. Aluminum plates are economical . . . cost less to buy, less to use.

Litho plates of Alcoa Aluminum are available through reliable manufacturers and suppliers. Let us send you a list of these suppliers and our new folder about aluminum plates. Write ALUMINUM COMPANY OF AMERICA, 1851-G Alcoa Building, Pittsburgh 19, Pa.



Peter Grant and Stahley Thompson (I-r) color-correct a Horizon proof with Irwin Glusker, American Heritage art director. Internationally famous printing consultants, Stahley Thompson Associates supervises production of all American Heritage publications.



Pressman William Gruby says that inspection of aluminum is easier. Aluminum plates run cleaner, stay cleaner. Nonprint areas don't polish up during long runs.



Herst Litho meets American Heritage standards thanks to aluminum plates and the astute supervision of litho expert Lee Coleman (left), here checking final details on a black plate before last press run.



Aluminum's greater tensile strength prevents distortion of image when putting the plate on. And aluminum is easier to handle and store because it weighs only one-third as much as other lithographic metals.

Look for this label . . . it's your guide to the best in aluminum value



For exciting drama watch "Alcoa Theatre," alternate Mondays, NBC-TV, and "Alcoa Presents," every Tuesday, ABC-TV

One of a series of unusual art masterpieces Four **Perspectives** on **Curtis** Fluoro-Antique

Sixth-Century Chinese statue of Maitreya Buddha from the collections of The University Museum of The University of Pennsylvania, Philadelphia



This beautifully painted figure was carved from limestone by Chinese artists of the Wei Dynasty about 514 A.D. It represents Maitreya Buddha, and is from a temple in the Sang-Yang District of Chihli Province. It is shown in four printing perspectives, four-color process, black-and-white halftone, line and duotone on Curtis Fluoro-Antique Cover, Basis 65. A full-color print of the statue suitable for framing is available through your local Curtis paper merchant.

Curtis Fluoro-Antique is available in text and cover and is nationally distributed through these leading paper merchants

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Forest Paper Company, Inc.
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Nelson-Whitehead Paper Company
The Whitaker Paper Company
Willmann Paper Company
OKLAHOMA CITY, OKLAHOMA Henry Lindenmeyr & Son OKLAHOMA CITY, OKLAHOMA Graham Paper Company PHILADELPHIA, PENNSYLVANIA A. Hartung & Company The J. L. N. Smythe Company Wilcox-Walter-Furlong Paper Company PHOENIX, ARIZONA Graham Paper Company PITTSBURGH, PENNSYLVANIA General Paper Corporation PORTLAND, OREGON West Coast Paper Company PROVIDENCE, RHODE ISLAND Cook-Vivian-Lindenmeyr Company, Inc. Providence Paper Company

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Carpenter Paper Company SHALIMAR West Coast Paper Company SPOKANE, WASHINGTON Independent Paper Company Independent Paper Company SPRINGFIELD, MISSOURI Wertgame Paper Company SYRACUSE, NEW YORK Genesee Valley Paper Company TACOMA, WASHINGTON Allied Paper Company TAMPA, FLORIDA
Graham-Jones Paper Company
E. C. Palmer & Company TOLEDO, OHIO
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Graham Paper Company
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Frank Parsons Paper Company, Inc. WICHITA, KANSAS Graham Paper Company WILMINGTON, DELAWARE Whiting-Patterson Company, Inc. WORCESTER, MASSACHUSETTS Cook-Vivian-Lindenmeyr Company, Inc. YAKIMA, WASHINGTON Carpenter Paper Company

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Newark, Delaware

quality features in paper and why they are important to printers and lithographers.

The club's Old Timers' night will be held July 2 at the Normandy Village, Minneapolis.

Cleveland =

Man of Decisions

Paul F. Schmidt, chairman of the board, Harold M. Pitman Co., described the platemaker as "A Man of Decisions," at the May meeting of the Cleveland Litho Club.

Mr. Schmidt pointed out that the platemaker, being so vital in the lithographic process, must be fully prepared to make a number of decisions which are of great importance to the quality of the finished litho product.

He pointed out the importance of the platemaker's knowledge of the chemical and physical qualities of plates to achieve the desired results.

John E. Braun, who was an honorary and charter member of the club, died on May 9, at the age of 66.

Norbertas Plechavicius, Lake City Litho Service Co., was approved for membership at the May board meeting of the Club.

Milwaukee

Visit Envelope Company

A tour of the Western States Envelope Co., was the educational feature of the May meeting of the Milwaukee Litho Club. The members viewed the facilities of the plant and watched production operations at the Milwaukee company.

Detroit

nc.

June Safety Meeting

At its June meeting the Detroit Litho Club heard L. B. Castonguay, professor of plant safety at Wayne State University, and Detroit insurance manager, who discussed plant safety and safety programs. In addition to Mr. Castonguay, a member of the Detroit police department discussed safety on the road.

Susquehanna

Tours Newspaper Plant

Prior to its regular June meeting, the Susquehanna Litho Club toured the Reading Eagle Times building, Reading, Pa. Groups were escorted by Eagle employes through the plant, from the editorial rooms to pressroom and shipping room.

After the tour and dinner, the club's meeting featured a question and answer period with a technical panel consisting of Benjamin Clerico, press; Frank Yeager, camera; John Hershey, plates and stripping; Daniel Gallagher, ink and Richard Kelly, paper.

Baltimore

Annual Award Night

Edwin W. Parker, president of Photo Litho Plate Graining Co., Cleveland, discussed "Internal Salesmanship" at the annual awards meeting of the Baltimore Litho Club held in April.

Philadelphia

Talk on Pin Register

A slide film presentation of a modern pin register system was the program at the May 25 meeting of the Philadelphia Litho Club, in the Poor Richard Club. Chesley F. Carlson, of the Chesley F. Carlson Co., Minneapolis, showed how his stainless steel register pins and his photo-composing spacer can save time and effort in offset stripping and platemaking.

He said that the system assures accuracy of register from light table to press and is quite easy to manipulate.

The meeting was the last regular session of the club until fall. Plans for the September dance at Eddington Farms, a repeat of a very successful program held last fall, were outlined by chairman Harvey Webb.

New members welcomed into the club are Hans Weiss, Smith-Edwards; Edward Varczewski, Banes and Mayer; and Joseph Gephart, Aatell and Jones Co. President Russell Johnson and past president Stephen Rubenstein represented Philadelphia at the annual NALC convention in Minneapolis last month.

Shreveport

To Tour Paper Mill

Two tours of the International Paper Co. mill at Springhill, La. are planned for July by the Shreveport Litho Club. The dates of the tours are set at July 8 and July 15.

Boston

Ink and Register Discussed

Register problems due to water absorption or evaporation and ink drying problems on non-porous surfaces, were discussed by John Kronenberg, S. D. Warren Co., Boston, and D. W. Sargent, Anaconda Aluminum Co., at the May meeting of the Boston Litho Club.

John R. Conlon, Courier Citizen Co., Lowell, Mass., was elected president of the club. He succeeds R. Curtis Reed, Interchemical Corp., Cambridge, Mass.

Others elected to serve during 1959-60 are F. Burton Reed, 1st vice president; James Frisone, 2nd vice president; and Vincent J. Aliberte, secretary-treasurer.

Printer's Profit Discussed

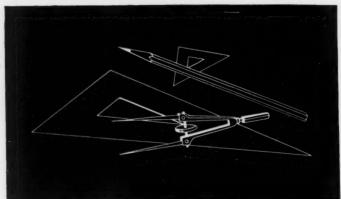
Arthur Johnson presented "What Should Your Profits Be?" to a recent meeting of the Houston Printing Industry Association.

According to Mr. Johnson, many printers do not realize a just profit because they are afraid to set a price which will make it possible.

Mr. Johnson also conducted a workshop for printers, in the Houston area, on "Measuring Your Management Efficiency," during May.

Joint Picnic Held

The annual joint picnic of the Dayton Litho Club and the Dayton Club of Printing House Craftsmen was held June 18 at the Hillside Manor in Union, Ohio.



Progress By Design!

"Engineering" and "know-how," the result of more than sixty years' experience servicing Metal Decorators' needs, are the priceless elements that go into all of Wagner's installations and equipment. As the Metal Decorating Industry has progressed, Wagner design has kept pace. Therefore you may be certain that a Wagner installation has been time-tested in the laboratory of production.

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METAL DECORATING

Parker Metal Decorating Celebrates Its 40th Year

PARKER Metal Decorating Co., Baltimore, is celebrating its 40th anniversary this month. It was in July, 1919 that Edwin A. Parker, a man of wide experience in lithography, and inventor of the Parker lithographic process, founded the company and served as its first president.

In the early days, company officials remember, activities were confined to the lacquering, coating and lithographing of light gauge metal sheets for numerous metal can, cap, closure and toy manufacturers. Soon after, however, purchase of the metal sign department of Crown Cork and Seal Co. put the young company in the additional pursuit of manufacturing signs and displays.

In 1927 the lithograph department of Southern Can Co. was acquired and in 1928 the decision was reached to enter the field of metal container nanufacture. In early 1929, the Independent Can Co., a wholly owned subsidiary, was in full operation for the production of general line cans for the trade.

After the sudden death, at 56, of Mr. Parker later that year, Harry G. Evitt, an old associate, succeeded him as president of the firm.

Progress continued and, despite the climate of business in 1932, the company went into the manufacture of a line of housewares, which neces-



Winslow H. Parker

sitated the acquisition of additional equipment and buildings. (This line is marketed under the trade name "Parmeco".)

Parker operations at this time embraced four different activities: general metal lithography, sign and display design and manufacture, housewares manufacture and the production of general line cans through a subsidiary, Independent Can Co.

Mr. Evitt retired as president in 1944 and was named chairman of the board. Winslow H. Parker, a son of the founder, was elected president. Three years later he was made board chairman as well, and has served in that dual capacity ever since.

In 1949, because of conflicting seasonal demands of the various manufacturing departments, the Independent Can Co. was sold, a move designed to put the parent company in a stronger competitive position for its three main divisions.

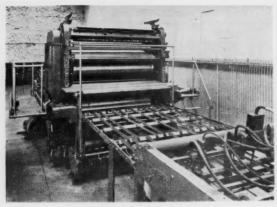
Today, Parker occupies three plant locations, utilizing some 85,000 square feet of space with approximately 125 employes.

The company is proud of the fact that the metal containers, closures and caps decorated by it for producers and processors in the cosmetic, food and other fields are handled and used daily by millions of consumers throughout the U. S. and abroad. Countless children play with toys and games made of metal decorated by Parker. The company's fancy cake and candy boxes are well known from coast to coast.

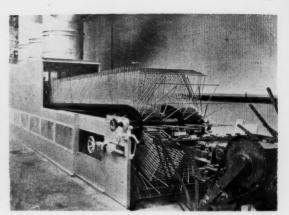
Housewives across the country enjoy the utility and economy of the metal canister sets, bread boxes, waste baskets and other housewares items designed and manufactured by Parker and sold through a nationwide distributing organization.

Metal Litho Work Suspended

Zahn Steel and Lithographing Co., Northern California's only trade metal lithographing plant, has suspended operations. It was established at Santa Clara in 1948, and in 1953 was bought by Caspers Tin Plate Co. of Chicago.



Dexter feeder passes sheets to 72" press.



Cooling zone and discharge end of oven.

Decorator Boasts 'Completely Lithographed 55-Gallon Drums'

ML has been intrigued by an advertisement appearing in a British publication which shows a Rheem Lysaght drum with the caption "The Only Completely Lithographed 45 Gallon Steel Drum . . . From the World's Largest Metal Decorating Press." Eager to learn the production details of this drum, the staff requested details from Rheem Lysaght Ltd., St. Vincent's Works, Bristol 2, England, and promptly received the following description:

A STEEL drum line was laid down in Bristol, England, after the war by Rheem Lysaght Ltd., which, besides supplying a demand for the conventional roller coating finish, is able to offer fully decorated containers in all ranges from the four-gallon up to the 55-gallon size. Offset printing is carried out on a 72" Hoe press. This press makes Rheem the only plant in Europe capable of fully decorating the larger types of drums.

The Bristol firm is an associate of the Rheem Manufacturing Co. of America and John Lysaght Ltd. of England. The technical knowledge in drum manufacture and finishing of the American, with the long engineering experience (100 years)

and extensive steel connection of the English company, has proved a most successful alliance.

High quality as regards both fabricating and finish has engendered in the U.K. a keen sales appreciation of the benefits of utilizing the large steel containers as decorated by this firm. The utilization of roller coating offers distinct advantages to the drum manufacturer in his production, and the container user-in his packaging presentation. It makes



Close-up of the 72" Wagner magnetic spot coater, running here with finishing varnish.

possible a wide range of finishing combinations which, when combined with lithography, will reproduce in type and design all the advertising features essential to a complete sales program.

Roller coating and lithography are carried out on the flat sheet, so that, in effect, the finishing process is completed before the drum is fabricated.

Plant Layout

The numbered illustration shows the sequence of operations through which a sheet passes during its finishing cycle.

The plant at any one time may be operating as a lithographing line, a roller coating line or a combination of both.

On purely roller coating operations, the litho press and the applicable loader-feed are out of action and are bypassed.

Skids of sheet for drum bodies, or heads and bottoms, are fed by roller conveyor on the Dexter feeder (6). Individual sheets are automatically fed via feed table (7) to a Wagner 72" magnetic spot coater (8) at rates of up to 4,000 per hour. Coated sheets then are fed from the coater via variable speed conveyor (9) on to the wicket-type conveyor of the Stordy convection oven (10) which is designed to cover the range of times and temperatures required, the maximum operating temperature being 450° F.

The oven is arranged for Town

Booklets Labels Inserts Catalogs Circulars **Forms** Tags **Tablets** Trim them all, up to

3 Times Faster DEXTER BRACKETT TRIMMER

Nothing trims or cuts as wide a range of work so fast...or so economically! In-line production, mechanical spacing and rugged construction are just some of the reasons why.

Dexter's Brackett Trimmer is up to 3 times faster than conventional cutters or trimmers. Production moves smoothly and accurately right through the Brackett. The built-in 9½ foot conveyor belt enables you to bundle, pack and ship right from the machine.

Easy-to-set cutting signals on the spacer shaft combine with the powered sliding gauge to position the work with precision register. Spacer shafts are removable...can be filed away with signals in place to save time on repeat jobs.

The fast, accurate, versatile Brackett Trimmer features selective hydraulic clamping, two-hand safety operation and simplified knife changing.

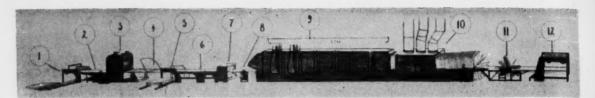
WRITE FOR FULL DETAILS TODAY ,

THE **DEXTER** COMPANY

A DIVISION OF MIEHLE GOSS DEXTER, INC.

Chicago 8, Illinois





gas firing, and is divided into six separate heating zones. The oven was built by Stordy Engineering Ltd., of Wolverhampton, in conjunction with Rheem Lysaght. Sheets passing through the oven center the cooling zone (11) where 18 x 24" fans rapidly cool the work before stacking.

When the plant is operating on litho work only, the sheet is fed into a Dexter loader feeder (1) which monitors the sheet via feed table (2) to the press (3). In this way the Wagner spot coater (3) is bypassed by raising the applicator roller and allowing the sheets to pass through.

The offset 72" metal decorating press is the largest metal printing press outside the United States and was supplied by Hoe of U.S.A., and installed by Hoe and Crabtree Ltd.

The press and the coater are in operation at the same time only when the final ink application is to be varnished. It is normal practice for this final print to be "wet-ink" varnished, ink and varnish being baked together.

Pigmented roller coatings used either as final finish or as the base color for subsequent lithographing, form the basis on which the process is built.

Important Features

To give some idea of the physical characteristics demanded of these materials, the following are a few of the more important features:

- 1. Exceptional opacity: One coat of film thickness of 0.7 to 1 thousandths inch should give complete obliteration irrespective of color.
- 2. Coating: Should be marproof and flexible in tooling and fabrication. All blanking and forming operations including insertion of "Trisure" closures make extreme demands upon the coating.
- 3. Color retention and aging: Coatings must be light-fast and durable. Furthermore, during process they may receive up to eight extra bakes during lithographing and varnishing.
- 4. Stacking: Coating must withstand stacking pressure without any sign of sheet sticking. The bottom sheet of a pile may have a pressure of up to four tons exerted on it.
- 5. Stability and good working properties: Coating must be able to run on roller coater for many hours without detriment.
- 6. Printing base properties: Excellent reception of printing inks and varnishes at all stages of process.

The successful inter-relationship of all coating and printing materials used on the fully lithographed item is vital to the ultimate result and performance. In this direction Sealset synthetic inks on a modified alkyd resin base were specially formulated to give maximum performance with the printing base roller coatings and finishing varnishes.

An interchange of each other's production data was established by Robt. Ingham Clark and Co. and the Fishburn Printing Ink Co. Ltd., so that all potential snags could be ironed out at research level before any materials ever reached the stage of production test. This cooperation proved to be extremely valuable and before the line started up, each was fully conversant with the other's products.

Whenever lithographing is part of a process, a finishing or wet-ink varnish is used, its function being to protect the lithography.

Most of the physical properties of the varnishes line up with those of the pigmented roller coatings, with an additional feature in that they are required to give exceptional "holdup" when applied over numerous coats of ink.*

Inland Steel Combines Research

Inland Steel Container Co., Chicago, has announced that it is combining its research and development efforts with those of a Netherlands firm, the Van Leer group, which is setting up laboratory facilities for this work in England. Inland Steel Container Co. is a division of Inland Steel Co., which operates large metal lithographing facilities in its manufacture of drums and pails. There will be no merging of corporate interests, the announcement stated, and collaboration with the Dutch enter-

prise will be limited to scientific research and technical development.

Litho-Print Appoints May

Litho-Print Ltd., Toronto, Canada, has appointed Claude H. May sales manager to replace T. L. Taylor, who is retiring. Mr. Taylor has been with the company since 1932 in various sales capacities.

Parker Rejoins Premier

Frank Parker has rejoined Premier Printing and Letter Service Inc., Houston, as sales manager. Mr. Parker has been on attached service with the United States Army Jupiter Missile installation at Redstone Arsenal, Alabama for the past two years.

Culver Honored

Byron G. Culver, head of the printing department of Rochester Institute of Technology, was honored at a Gamma Epsilon spring banquet. Mr. Culver was presented with an honorary membership in the fraternity for his contributions to graphic arts education.

E PROFIT PLATE



Warren's low-cost plate for high quality reproduction

HOW IT SAVES TIME AND MONEY

- 1. Low original cost the lowest-cost presensitized plates available.
- 2. Low chemical processing costs 25 to 50% less than comparable metal plates.
- 3. Quick, easy preparation. More plates per day can be readied for the presses.
- 4. Consistent quality no waste of time or materials, will not scratch.
- 5. FotoPlates prevent scumming, run properly with little water and just a

thin film of ink (thereby minimizing difficulties on the press and in drying).

High quality reproduction: FotoPlate's fine-grained surface assures accurate reproduction of half-tone dots. Caliper is 0.012.

A unique product: Warren's FotoPlate is unlike any other presensitized plate that is being offered for sale. It is the result of many years' research on the part of the S. D. Warren Company, world's largest producer of non-metallic lithographic plates. It is a proven aid for making profit in the lithographic industry.

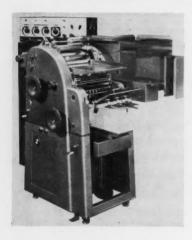
Write for free booklet: We will be happy to send you our 16-page booklet describing Warren's FotoPlate upon request.



S. D. WARREN COMPANY, 89 Broad Street, Boston 1, Massachusetts



Dick Offers Automated Imprinter



A high speed automated check imprinter, which, according to the company, reduces manual operations from seven to two and eliminates guess work, is being offered by the A. B. Dick Co., Chicago.

The unit is designed especially for high volume, repetitive check imprinting runs. The machine will automatically develop an image from a master, maintain inking from master to blanket to paper, count checks, books and deposit slips, hesitate for insertion of reorder forms, clean the image from the blanket, stop in position for removal of the master and reset itself for the next cycle.

The company points out that the unit will automatically imprint and collate 1,000 check books an hour, including deposit slips and reorder forms.

The imprinter may be used with the A. B. Dick magnetic ink or conventional offset inks. Between check imprinting runs it may be used for longer conventional offset runs simply by turning off the program unit.

The model, called the 366, is similar in design to the 368, which was described in the May issue of ML. The newer model is more fully automated, according to the company.

Oxford Paper Folder

Oxford Paper Co., New York, has released a new line of coated papers produced by the trailing blade process. They are called the North Star Coated Papers. A booklet describing the paper is available from the company.

Transparentizing Techniques

New techniques for producing clearer faster reproductions, by transparentizing opaque paper stocks so that they may be used as intermediates in offset platemaking and in making direct reproductions, have been developed.

A new method called the CTS method, has been developed by



. The imprinter is equipped with a 12-roller inking system and the company's Aquamatic control unit, which controls the water balance so critical to magnetic imprinting operation.

The machine has an image area of $10\frac{1}{2}$ x $16\frac{1}{2}$ ", which makes it useful for conventional offset work as well as magnetic imprinting.

Hampton Processes, Inc.,. Newton, N. J. It is described in a folder available from the company.

New Gelb Line Up Table

Joseph Gelb Co., 52 Arlington St., Newark, N. J., announced a new line up and register table in two sizes. Both incorporate the Gelb registration system which enables the operator to do horizontal and vertical work in much shorter time.

The system employs only a single horizontal straight edge, with two sets of mating pins mounted at right angles on the pin bars, which are used to register the work both horizontally and vertically.

New Kalle Flatbed Press

The semi-automatic Kalle flatbed offset press is now available in a second and larger model, accommodating a maximum paper size of 16 x 20", according to Amsterdam Continental Types & Graphic Equipment, Inc., U. S. distributors. The press is also available in a 13 x 18" model.

According to Amsterdam, both presses, designed and built by the Kalle Works of West Germany, have continuously adjustable speeds from 320 to 850 iph and are extremely effective for shortrun color jobs, off-

(Turn to Page 79)



COLOR PHOTO BY ANTON BRUEHL

"Whatever became of the photograph album?"

Every home had one a few years ago. Now every home—or so it seems—has wholly succumbed to color.

The reasons needn't be belabored. Suffice it to say that the universal appeal of color is a useful factor in business, too. For example, colorful Howard Bond puts flash and dash in business printing; greatly expedites the flow of business forms and other paper work; replaces the humdrum with printing that gets attention and calls for action.

There are 13 Howard Bond colors—each clear, clean, distinctive. Your printer or paper merchant will be pleased to show you samples, as will we if you'll write and ask.

PRINTERS! This message appears in advertising magazines read by your customers.

HOWARD PAPER MILLS, INC. . HOWARD PAPER COMPANY DIVISION, URBANA, OHIO

Howard, Bond

"The Nation's

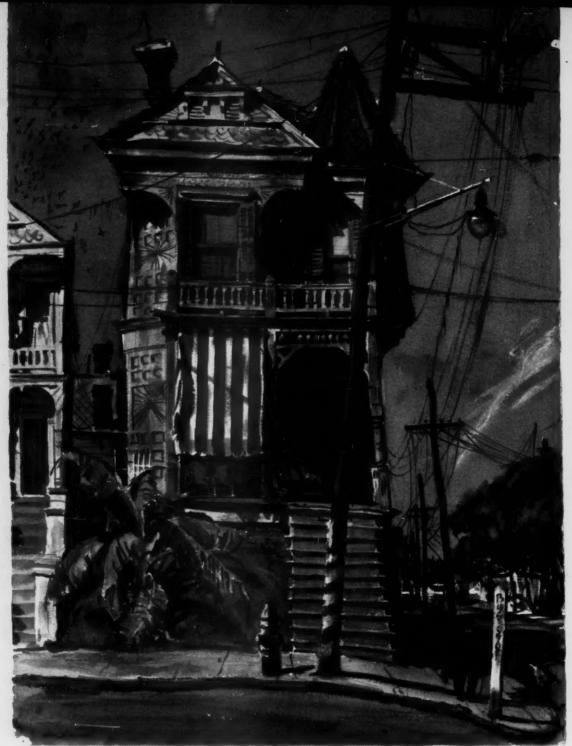
Companion Lines: Howard Ledger . Howard Mimeograph

Printed on Maxwell Offset

Business Paper"

Howard Duplicator . Howard Posting Ledger

Basis 80-Wove finish



Printed on Maxwell Offset-Basis 80-Wove Finish

Discoveries in American Art

...on Maxwell Offset

"Annunciation Street", a favorite of its creator, noted painter William A. Smith, is published here for the first time—although it has been widely exhibited and admired. Note how Mr. Smith has caught the character of this old New Orleans home, and how the printer has captured this character on Maxwell Offset. You'd do well to specify it, too, for any kind of color reproduction.

PLATES



PROOF:

Quality lithography depends on the plate

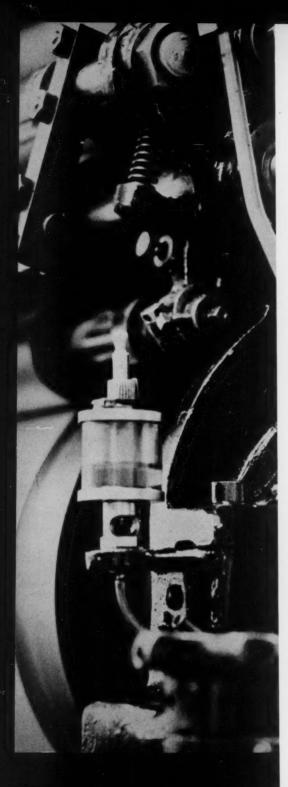


Plate costs are only 10 of your litho dollar



... so buy the best.

Perfect middletones, sharp highlights ...even with difficult copy!

The flawlessly smooth surface of 3M Brand Photo Offset Plates gives you consistently high quality work—such as in the reproduction on the preceding page. As you see, middletones, highlights, solids and finest detail all reproduce perfectly—even with difficult copy.

With these pre-sensitized aluminum plates inks dry better, don't slur or fill as much. Emulsification is reduced. Up to 25% less ink is needed. As a result colors are truer and more brilliant.

To see the many other advantages of 3M Brand Photo Offset Plates, call your supplier now. He'll quickly show you in your own shop—even on presses taking extra large 48 or 59-inch plates—ways to add both quality and profit to your jobs.

Dependability wears a 3M label

3M

Photo Offset Plates

MINNESOTA MINING AND MANUFACTURING COMPANY

. WHERE RESEARCH IS THE KEY TO TOMORROW



St. Paul 6, Minn.

"3M" IS A REGISTERED TRADEMARK OF MINNESOTA MINING AND MANUFAC-TURING CO., ST. PAUL 6, MINNESOTA. GENERAL EXPORTI 99 PARK AVENUE, NEW YORK 16, N. Y. IN CAMDAI P. O., BOX 757, LONDON, ONTARIO. THE NORTHWEST PAPER COMPANY MILLS AT CLOQUET AND BRAINERD, MINNESOTA



Northwest



Pedigreed Papers

always make good printing better

NORTHWEST PEDIGREED PAPERS

Some of the nation's highest quality printing and writing papers are produced in these mills and are available through leading merchants most everywhere.



The Northwest Paper Company mill at Cloquet, Minnesota



The Northwest Paper Company mill at Brainerd, Minnesota

THE NORTHWEST PAPER COMPANY

CLOQUET, MINNESOTA

SALES OFFICES: Chicago 6, 20 North Wacker Drive; Minneapolis 2, Foshay Tower; Saint Louis 3, Shell Building; New York 17, 420 Lexington Avenue



PRINTING PAPERS

Northwest Ultrawhite Opaque Northwest Velopaque Text Northwest Velopaque Cover Mountie Text Mountie Offset: Regular-Antique Wove-Embossed North Star Offset Northwest Bond Northwest Ledger Northwest Mimeo Bond Northwest Duplicator Northwest Index Bristol Northwest Post Card Mountie E. F. Book Mountie Eggshell Book Mountie E. F. Label Mountie E. F. Litho Label Carlton Bond Carlton Mimeograph Carlton Ledger Carlton Duplicator North Star Writing Non-Fading Poster Map Bond

ENVELOPE PAPERS

Mountie Northwest Nortex White Nortex Buff Nortex Gray Nortex Ivory Carlton

CONVERTING PAPERS

Papeteries
Drawing
Adding Machine
Register
Lining
Gumming
Coating Raw Stock
Cup Paper
Tablet

Lithographed upon NORTHWEST VELOPAQUE TEXT Pinseal Finish 25x38—70 Pound



Kalle Flatbed Press

set proving and specialty runs of nameplates, decalcomanias and printed electrical circuits.

Both models feature a refrigerated plate-bed which creates condensation for automatic dampening. On materials with highly finished surfaces, a heating element within the cylinder eliminates excess water and insures good ink coverage, according to the firm.

The Kalle printing table can be raised or lowered to accommodate heavy carton stock, glass, sheet metal, plastic and other unusual materials.

Further information, prices and specifications may be obtained from Amsterdam at 268 Fourth Avenue, New York 10, N. Y.

Kimberly-Clark Coated Offset

Kimberly-Clark Corp., Neenah, Wis., is producing a new coated offset paper, which, according to the company, is designed for use where print quality dictates a coated surface but artistry suggests a soft velvety appearance.

The paper, called Prentice Velvet Coated, is available in basis weights of 70, 80 and 100 pounds and a variety of sizes.

Globe Introduces Three Items

Globe Printers Supply Inc., 409 Washington St., Newark, N. J., has introduced three new items to the trade. The first is an offset blanket specifically designed for the 1250 Multilith.

The second is a printer's offset reproducing pen, a special ball point pen made in two models for standard and fine line work. The third is a ruby plastic coated fluorescent bulb for darkroom safety.

Booklet Describes Kodak Services

Color film services for amateur and professional photographers and photofinishers are described in a newly-revised booklet available now from Eastman Kodak Company.

The eight-page booklet, "Kodak Color Processing, Printing, and Duplicating Services," (E-17) tells how to order Kodak services for Kodachrome, Ektachrome and Kodacolor films and lists the wide range of services offered on each of these films. Information includes film sizes involved, physical properties of the finished product and list prices.

The booklet is available free from Sales Service Division, Eastman Kodak Colpany, Rochester 4, N. Y.

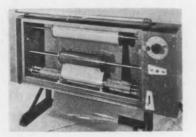
Booklet Describes Harris Presses

A booklet describing the Harris single and two color presses in the 23 x 36" sheet size is available from Harris-Seybold Co., 55 Public Square, Cleveland, Ohio.

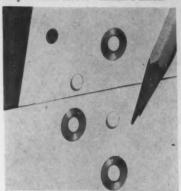
The 26-page, illustrated booklet describes feeding, registering, dampening, inking, printing and delivery features.

Unitronics Offers Film Dispenser

A roll film dispenser developed by Unitronics, Inc., provides a convenient method of achieving savings and reducing film inventory, handling, storage and spoilage, according to the company. Holding two rolls from six to 30" wide and up to 200' long (depending on thickness of the film), the unit meters mylar, Cronar and other PB or acetate base film, cutting any length. Virtually every standard sheet film size commonly



Boyd Announces "Litho Punch"



It is now possible to punch paper or card stock on the press during regular litho runs by using the new Litho Punch, thus saving the extra drilling operation on many jobs, according to H. S. Boyd Co., Tulsa, manufacturer of a line of perforating, scoring and cutting devices for printers and lithographers.

Litho Punches are applied to the impression cylinder of the press with polyester tape. They may be used on any offset press equipped with a positive delivery system, said the company.

Litho Punches are small, flat discs of high-carbon steel with a turned cutting edge of less than 1/64" in height, sharpened and honed for clean cutting.

employed in the graphic arts industry can be provided.

The dispenser may be mounted on a wall or fitted with auxiliary brackets and installed on a table. No electrical work is necessary, inasmuch as an ordinary 115V outlet supplies sufficient power. A self-sharpening knife blade, of the type employed in high speed automatic cutting machines, is included on the unit.

Additional information is available from Unitronics, Inc., 472 Paul Ave., St. Louis 35.

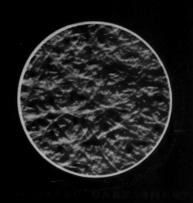
Light Brochure by Strong

A complete line of automatic high intensity arc lamps for photo-mechanical reproduction processes is described and illustrated in a new brochure now available from The Strong Electric Corp., 17 City Park Ave., Toledo 1, O.

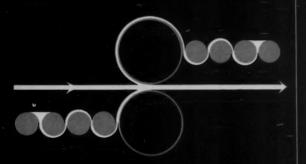
WHAT MAKES A PRINTING PAPER LEVEL/SMOOTH?



NOW, CROWN ZELLERBACH CORPORATION BRING RE YOU LEVEL/SMOOTH PRINTING PAPERS FROM THE WIND FIRST ALL NEW PAPER MACHINE TO COMBIN FAIR ROLL-AND TRAILING-BLADE COATING ON-THE ME MACHINE IN ONE CONTINUOUS OPERATION. THE LEVEL PARTICLE AND TRAILING-BLADE COATING ON-THE MEDITAL OF THE PARTICLE OF THE PARTIC











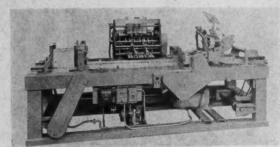


WITH AN EXTRAORDINARILY LEVEL/SMOOTH SUR-FACE AT NON-PREMIUM PRICES. ASK YOUR PAPER MERCHANT TO SHOW YOU CROWN ZELLERBACH'S LEVEL/SMOOTH DEMONSTRATION.

CROWN ZELLERBACH

INTING PAPER DIVISION

New Dual-Feed Mailing Machine Introduced By Magnacraft



Dual-Feed Labeling and Mailing Machine.

The Magnacraft Mfg. Co., New York, is producing a new dual feeding mailing machine.

Called the JM 39, the new machine has two built in feeding units. It is capable of handling both regular size magazines, tabloids and thin magazines. Labels, either electronic or standard strip, can be affixed any place on the magazine. The machine can also be adapted for automatically inserting pages or notices.

New Offset Paper

Fletcher Paper Co., Chicago, has added a new paper, called Alpena Hi-Bulk Offset, to its regular line of printing papers.

The paper is being made in white, blue, deep ivory, pink, yellow, green and goldenrod.

A folder containing samples of the new offset stock is available from the company at 20 N. Wacker Drive, Chicago.

New Offset Ink

The Crescent Ink and Color Co., Philadelphia, has developed a new fast setting ink for offset work.

Compounded especially for use on fine coated stock, it sets and dries quickly with a high gloss finish.

Plastico Offers Catalog

A new catalog, illustrating its complete line of binding equipment, is being offered by the Plastico Binding Corp., 732 So. Sherman St., Chicago.

The catalog, bound in plastic, illustrates the company's line of plastic binding equipment.

GBC Has New Laminator

General Binding Corp., Northfield, Ill., announces a new laminating machine designed both for office and plant use. Although occupying only the space of a typewriter, the machine is capable of 200 pounds pressure, and can be easily operated, according to the company.

Product Catalog from Leedal

Leedal, Inc., Chicago, has issued a new catalog featuring its new line of color film processing units with automatic gas burst agitation and temperature control equipment.

Designed to save time, labor, and make use of non-skilled help while giving uniform high-quality results, the units come complete with gas



Gas-agitated Processing Sink

timing, gas distribution and water controls.

Units are set up for maximum versatility, handling color film (roll and sheet), color print material, up to 16 x 20", and high quality black and white work such as separation negatives.

The catalog is available from the company at 2929 S. Halsted St., Chicago 8, Ill.

Hampton Offers New Paper Guide

A new paper guide, designed to cut paper waste, is being produced by Hampton Processes Inc., Newton, N. J.

The unit pops up automatically if the paper is improperly positioned in the elevator.

According to the company, it is possible to add or remove paper while the press is in operation. Furthermore the guide acts as a cushion to give with minor changes in the paper size.

New Flexible Offset Sheet

A new flexible offset sheet which allows the pages of a side stitched book to lie flat has been developed by the New York and Pennsylvania Co., New York.

Called "Penn/Flex Offset" the flexibility is achieved by a rearrangement of pulp structure, reapportionment of various types of sizing used in the paper making process, along with changes in procedure on the paper machine itself, according to the company.

Nashua Offers Sample Book

Nashua Corp.'s Merchant Sales Division, Nashua, N. H., is offering a sample book of all grades and colors of its Davac adhesive label papers with non-curl qualities.

Information included in the folder covers manufacturing widths, base stock grades, packing, rolls, shipping tolerances and outstanding characteristics of the product.

Requests for folders should be sent to Dept. ML, Nashua Corp., Nashua, N. H.

New Photo Paper

A new high-speed contact printing paper designed to meet the requirements of the commercial and industrial photographer is being made by Ansco, Binghamton, N. Y., the photographic division of General Aniline & Film Corp.

Called Ansco Cyko Paper, it is designed for all types of commercial and industrial photography where high quality prints are needed in quantity.

HAI

HALOID XEROX INTRODUCES

a new and complete line of Halolith* materials for every graphic arts need!

This superb, new line of Halolith films and papers is furnished in a wide variety of bases to accommodate *every* graphic arts need. All new bases and emulsions are used in this series. Each was exhaustively field-tested under actual shop conditions prior to its introduction. Available in all cut sheet and roll sizes, Halolith products match or exceed the best on the market today.

A free demonstration of any of the materials in the Halolith series is available at your convenience... with your own equipment.



HALOLITH ORTHOCHROMATIC MATERIALS

- Halolith Film Standard: A film on a .0054" base. This film is ideal for general purpose line and half-tone work.
- Halolith Film Thin: A-top-quality film on a .0034" base, designed for both line and half-tone work, lateral image reversal, overlays and strip-ins.
- Halolith Poly-S Film Standard: An excellent film on a clear, .0054" polystyrene base for use where a high-degree of dimensional stability is required.
- Halolith Transaloid[®]: A translucent medium giving results comparable to acetate film but with significant price advantages.
- Halolith Paper A: Excellent for reproducing from colored, faded, or stained copy. Coated on 16 pound document base paper.
- Halolith Paper B: For line negatives and positives and for use with colored or stained copy. This is coated on 25 pound baryta coated photo-base paper.
- Halolith Stripping Transaloid: A translucent medium used for stripping. Results compare favorably with more expensive acetate films. It has a .0012" permanent support base laminated to Halolith Transaloid temporary base.



FOR FURTHER INFORMATION, WRITE: HALOID XEROX INC., 59-458 Haloid St., Rochester 3, N. Y. BRANCH OFFICES IN ALL PRINCIPAL U. S. CITIES.

HALOID XEROX Bonwit Teller

'n warp print etate faille

> This insert is printed on Sterling Letterpress Enamel 25 x 38 - 80#

> > Glamorous Affair

Manchu Nightingale,

our own fashionable catch, imported for a favorite lady. Pure silk brocade designer short coat that is reversible to show a different color. Red with gold or black with gold one side; gold silk the other.





This 48 page booklet printed by Davis, Delaney Inc., New York, on a 61", five unit, rotary Miehle letterpress. Cover printed on 100# Sterling Letterpress Enamel; inside pages printed on 70# Sterling Letterpress Enamel.



When does Christmas really start?

For retail stores, Christmas begins with bright, merry, attractive gift catalogues—like this Bonwit Teller brochure. For this or any prestige job that *must* be right, West Virginia's Sterling Letterpress Enamel is the perfect paper.

Check its printability and excellent opacity. Brilliant whiteness and high gloss provide clear, sharp reproduction of fine screen halftones. Gloss inks pop the message off the page, compel readership.

The West Virginia family of top-quality papers includes offset as well as letterpress grades for nearly every specification. You get fine papers *plus* all the benefits of West Virginia's direct mill-to-you sales policy.

On your next estimate, compare the quality and see the savings for yourself. For full details contact one of the offices listed below, or write West Virginia Pulp and Paper Company, 230 Park Avenue, New York 17, New York.



Commercial Printing Paper Sales Fine Papers Division

Chicago 1 / FR 2-7620 New York 17 / MU 6-8400 Cincinnati 12 / RE 1-6350 Philadelphia 7 / LO 8-3680 Detroit 35 / DI 1-5522 Pittsburgh 19 / CO 1-6660 San Francisco 5 / GA 1-5104



West Virginia
Pulp and Paper

NEWS about the TRADE

Arader Buys Stern

SALE of one of Philadelphia's largest combination plants to one of its principal officers was completed as this issue went to press. Walter G. Arader, executive vice president of Edward Stern and Co., Inc., assumed financial control of the company in a transaction consumated June 29.

Mr. Arader became president and chief executive officer succeeding Maurice Segal, who is retiring. Charles Weyl continues as chairman of the board. In other changes, Louis Neibauer has been named sales manager and continues as a vice president, and Harold Lesher, vice president and treasurer, has been named to the board of directors.

Mr. Arader, a 1942 graduate of the University of Pennsylvania, served as an industrial engineer with General Electric Co., before joining Stern in 1950 as assistant to the vice president for manufacturing. He was appointed plant manager in 1954 and became executive vice president early this year.

He is a native of Philadelphia, living now in suburban Radnor. He is chairman of the printing division

Magnetic Printing Conferences

Regional conferences to discuss and analyze the final specifications and guides to printers on the common machine language for mechanized check handling were held throughout the country recently under the auspices of the LPNA bank stationers section of the Lithographers and Printers National Assn.

Seventy-five companies and 255 persons attended the conferences held

of Printing Industries of Philadelphia and has taught management courses at the School of Printing Management, conducted by Printing Industries of Philadelphia, and at Villanova University.

Edward Stern and Company, Inc., founded in 1894, is nationally known for its high quality color work and particularly for its Optak process. The firm, located at 140 North 6th St., in downtown Philadelphia, is a completely integrated printing operation. In addition to letterpress and offset pressrooms, a bindery, composing room and art department are maintained. Total employment is 275.

Mr. Arader told ML, as this issue went to press, that "present plans are to continue operating in the same field of high quality commercial printing. Our objective will be to maintain and enhance the fine reputation of Edward Stern and Company, Inc., for quality printing."

While the purchase price of the company cannot be disclosed, Standard and Poor lists annual sales of the company at between three and six million dollars.

in Chicago, Kansas City, Denver, New York, Baltimore and Louisville. The conferences were conducted by George McSweeney, president, De-Luxe Check Printers, Inc., Chicago. Robert L. Eger, of the LPNA staff, and the section representative to the Office Equipment Mfrs. Institute subcommittee.

The primary purpose of the meetings was to discuss and analyze the specifications for the new E-13-B type font which were first distributed to check printers at the LPNA Convention in April.

In addition to reviewing the specifications, each meeting included an analysis of the advantages and disadvantages of the various printing processes, methods of inspection and testing devices.

Present indications are that the Federal Reserve Bank will make a survey in the fall of 1959 in order to determine automation plans, and that some equipment will be installed for testing purposes within a year.

ALA Plans Convention

The Amalgamated Lithographers of America early this month announced plans for its annual convention, to be hold in Portland, Ore., Sept. 14-18 at the Hotel Multnomah. ALA recently launched a campaign in the U. S. and Canada to promote its label "as a recognized seal of quality," according to president Francis P. Slater.

Litho Plant Established

Sequoia Publishing Co. has been established in Oakland, Calif., to lithograph and publish magazines and books for children.

Principals are Burton Collons, Keith Soward, and Donald Young, who is in charge of the plant. Mr. Young was previously with Lithograph Reproductions of Oakland.

Hundley Dies

Edwin B. Hundley, Sr., 58, of Louisville, died recently. He had been vice president of Standard Printing Co., in that city.

Mr. Hundley began his lithographic career in 1915 as a flyboy on a stone lithographic press at Kentucky Lithographic Co., also in Louisville.

Sam Weil Dies



Sam Weil, vice president and director of manufacturing at Keller-Crescent Co., Evansville, Ind., died suddenly late in May at his home, apparently of a heart attack, He was 54.

Mr. Weil was active on committees and boards of national trade organizations representing various segments of the graphic arts industry. He had served variously as a director of the Lithographic Technical Foundation and the National Association of Photo-Lithographers, as a member of the quality control committee of the Printing Industry of America and the PIA committee which developed manuals on production management and budgetary accounting. He was also a member of the education committee of the LTF.

A graduate of Carnegie Institute of Technology, he joined Keller-Crescent Co. in 1927.

Color Litho on Corrugated

THE corrugated container, usually colorless as a packaging unit, can now be printed in four or six colors through a process developed by Progress Lithographing Co., Cincinnati, O.

The inherent advantages of corrugated—strength, protection, and size—now can be combined, for the first time, with four-to-six-color pictorial reproductions from paintings, sketches, or the various forms of color photography, according to the company.

Under development for the past several years, the process has now been brought to the mass production stage by Progress. The company, which also has a plant in Lebanon, O., will supply the basic lithography to container manufacturers, who will finish the boxes for their customers.

With the process, called Pre-Lith, corrugated can move out of the shipping department and onto retail shelves, according to a company statement.

As the process name implies, the full color lithography is accomplished prior to combining with the actual corrugations and inside liner. This is done in long rolls on bleached, coated or natural liner board. The finished outside liner is then run through a corrugating machine, where it is combined with the corrugations. The flat corrugated sheets resulting from this are then shipped to box manufacturers who crease, die-cut, fold, tape and slot to produce the final box.

To gain the mass production stage for the idea, the Progress staff had to solve several problems. The main one was to take economical, full color roll lithography, combine it into flat corrugated board, then cut the finished flat sheets in accurate register. This is accomplished electronically by machines which the staff has modified.

Special inks also had to be developed to take the scuffing and high temperatures that are part of making the finished corrugated sheets. The company says that any shaped package can be made with Pre-Lith.

The company's present production facilities include four web-fed presses for pre-printing linerboard. Maximum press width now available is 40", with a 44" cylinder circumference. In the future, installation of larger presses with 70" width is contemplated.



Saunders Honored at 90



ONE of the best loved old-timers in the lithographing industry, Maurice Saunders, was honored, July 2, in Chicago, on the occasion of his 90th birthday, a day later. The birthday party was set for the Chicago Yacht Club, with many industry veterans in attendance.

On July 3, at Park Ridge, Ill. there was to be a family gathering, including Mr. Saunders and his wife, his son, Maurice Jr., manager of the financial and legal department at R.R. Donnelley, and daughter, three grandchildren and five great-grandchildren.

The honorary chairman of the board for the Lithographers and Printers National Association, and its secretary from 1921 to 1937, has served in the lithographic industry for 72 years. Those who chatted with him at the recent LPNA convention at the Greenbrier quickly learned that he is still alert and able.

Mr. Saunders, who spends most of his time in retirement now at Winter Park, Fla. was born in Cuyler, N. Y., in 1869. His career from school days onward is something like the classic American story of success through hard work. He had a newspaper route after school, and did all sorts of jobs for local stores. At 17 was managing a furniture store.

He entered lithography at 18, with the firm of G. H. Dunston, in Buffalo and served, successively, with Werner Co., Akron; U. S. Printing & Lithograph Co., Brooklyn; American Lithographic Co., New York and Sackett & Wilhelms Lithograph Corp.



Far more uniform negatives from each tray full...all perfectly developed. Full hard shadow dots, sharp highlight detail, crisp line shots... until the developer is completely exhausted. Because of its tremendous staying power there's practically no exposure compensation required. That means no guesswork... no forcing. A tray full usually lasts me all day. That's why I like

Hunt Premium Graph-O-Lith.

You can prove it to yourself that this developer is the best by ordering several cartons or larger sets of Premium Graph-O-Lith today and getting its many benefits as soon as possible. If it doesn't perform as Hunt says it will, all you have to do is write for return instructions. Hunt will return the full purchase price including the shipping costs."

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PALISADES PARK, NEW JERSEY

BRANCHES IN PRINCIPAL CITIES

In Canada: Philip A. Hunt Company (Canada) Ltd., 77 Leslie Street, Toronto



Gordon Hall Honored

Gordon C. Hall, retired western manager of the Lithographers & Printers National Association, was honored at a testimonial dinner June 9 at the Furniture Mart in Chicago. He retired from active service June 1.

Mr. Hall was presented with a permanently bound volume of letters from his friends and a purse.

Aside from his activities in the graphic arts, Mr. Hall has had a distinguished career in the U. S. Navy. He rose from apprentice seaman in 1908 to Lt. Commander of the U. S. Naval Reserve at the start of World War I. He was promoted to Commander in 1919, and became a Captain in 1938. In 1942 he was called to active duty in World War II, serving until 1946.

Mr. Hall became western manager of the former Lithographers National Assn. in 1946.

Stecher-Traung Plant Spared

Threat of razing for an area redevelopment program has been lifted from Stecher-Traung Lithographic Corp.'s San Francisco installation. Final lines of the "Golden Gateway" redevelopment project eliminate the blocks upon which Stecher-Traung's manufacturing plant and warehouse are located.

C. R. Churchill Honored

C. R. Churchill was cited as Graphic Arts Man of the Year by the Kansas City Printing Industries Association at its annual Installation Dance in June. Mr. Churchill is a former president of the association.

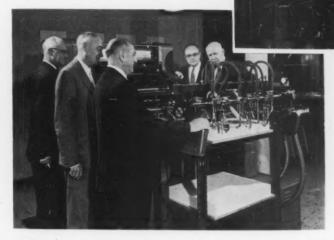
John S. Swift Dies

John S. Swift, 66, died late in May in St. Louis of a heart attack. He was the founder of the lithography firm which bears his name and a founder of the Bath Club, St. Louis.

BULKLEY DUNTON & Co., and Marquardt & Co., Inc., have been appointed distributors in the New York metropolitan area for the complete line of Strathmore Paper Co.'s line of Expressive papers.

Hold Seminar for ATF Sales Staff

Right: George Fife receives plaque and golf clubs from Orson Udall, Los Angeles branch manager at ATF Chicago seminar. Below: Studying new ATF press are (I.-r.) Dewitt G. Manley, J. Hugh Bolton, Samuel F. Flug. William W. Fisher and John T. Porter.



PIVE new sheet-fed offset presses, the Chiefs 126, 226, 238, 250 and 42 and 52", were among machines reviewed at two "New Product Seminars" held by American Type Founders Co., Elizabeth, N. J., for the sales staffs of its 11 branches.

The first was held May 20-22 at the Hotel Bismarck, Chicago, for sales representatives from Chicago, Cleveland and all branches west of the Mississippi. The second was held in New York on June 3-5 at the Hotel New Yorker for sales representatives from branches in Boston, Atlanta, Philadelphia, New York and Cincinnati.

The seminar consisted of a series of classes guided by ATF executives in which features of new ATF equipment, as well as ATF expansion plans, were reviewed in detail. These were followed by visits to the nearby

ATF branch where the new Chief 126 and Senator Cutter were demonstrated in operation.

DeWitt G. Manley, vice president, ATF General Printing Equipment Sales Division, reported on ATF plans for a major exhibit of new equipment at the Graphic Arts Exposition in September.

To commemorate his 55 years of service, George Fife, sales representative in the Los Angeles, Calif., ATF branch, was especially honored at the seminar held in Chicago.

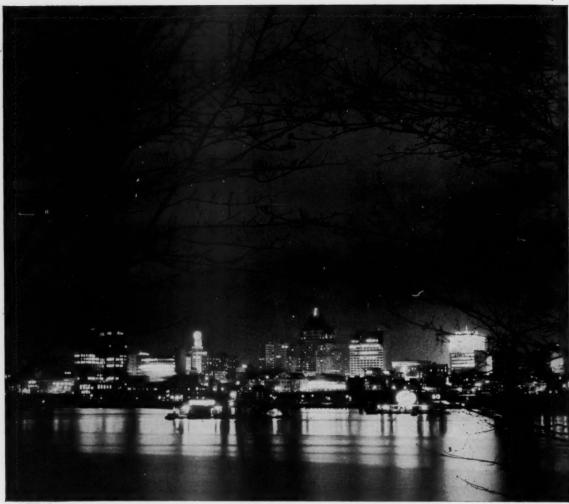
Mr. Fife joined ATF in 1904 and has spent his entire working life with ATF, primarily as a sales representative for ATF equipment.

The award, which consisted of a set of golf clubs and a commemorative plaque, was made at a special dinner during the three-day sales seminar.

McIntyre Joins Baker-Webster

James H. McIntyre has joined the staff of the Baker-Webster Printing Co. of Washington, D.C. as assistant manager in charge of Customer Service. Mr. McIntyre was formerly secretary-treasurer of Standard Press, Washington.

A. HARRY HEYMAN, Chicago area sales manager for Brown & Bigelow, St. Pau!, died April 15.



The Vancouver, Canada, skyline as photographed by Dennis Rowedder. In continuous-tone work—with either black-and-white or color art—Ilford's N.30 emulsion produces clean, sharp negatives and positives of outstanding fidelity to every tone value.

ILFORD N.30 F.G.O.+.010" PB=DS

Translated, this "formula" means that Ilford's widely used commercial emulsion, N.30 Fine Grain Ordinary, is now available on Type F.010" Polystyrene Base to insure maximum Dimensional Stability. It will also continue to be available on thin and regular tri-acetate base.

The new polystyrene base provides the dimensional stability necessary in close register color work and thus widens the usefulness of an emulsion noted for its wide middle tone

N10.30 is especially recommended for continuous tone gravure positives and monochrome negatives, and in the lithographic field for continuous tone negatives and positives. In every use it follows copy superbly.

Try this new film on your next tough job and judge for yourself. Your regular graphic arts supplier has it—or can get it for you.

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TAPPI Fiber Symposium

A symposium on the fundamentals of fiber attraction and bonding will be held Sept. 9-11 at the Institute of Paper Chemistry, Appleton, Wis. The symposium will be jointly sponsored by the Technical Association of the Pulp and Paper Industry's Fundamental Research and Wet Strength and Interfiber Bonding committees.

Engelbert E. Smith Dies

Engelbert E. Smith, 66, chairman of the Board at Crescent Ink and



Color Co., Philadelphia, died suddenly, May 30 at Atlantic City Hospital. He was highly esteemed in the Graphic Arts industry.

He joined Crescent Ink in 1919, soon after the company was founded. He served as secretary and treasurer until 1942, and was president from then until 1957, when he became chairman of the board.

He was active in the Philadelphia Club of Printing House Craftsmen, the Litho Club of Philadelphia and the Printing Industries of Philadelphia.

He was a former president of both the National Assn. of Printing Ink Makers and the Printing Ink Research Institute.

Keller Appointed Distributor

George R. Keller, Inc., has been appointed distributor in the Washington area for Consolidated International Equipment and Supply, including offset and gravure press equipment, paper cutters, cameras, bindery equipment, proof presses, step-and-repeat machines and Kleischograph, the new electronic engraving machine.

Catalog of Lithographed Forms

A new catalog showing its line of lithographed form letters and circulars is now available from the Davis Co., 2260 Nelson Drive, Schenectady, N. Y.

B&B Elects Mrs. Ward

Mrs. Charles A. Ward was elected president of Brown & Bigelow, St. Paul, Minn., at a special meeting of the company's board of directors, early in June. She succeeds her husbands, who died suddenly in May on a business trip.

An administrative committee of three members was set up by the directorate to assist Mrs. Ward in the management of the company. Members of the committee are E. C. Peterson, executive vice president, administration and finance; K. B. Priester, senior vice president, manufacturing; and R. J. Henderson, Sr., vice president, sales division.

Other directors include W. H. Oppenheimer, attorney, corporation counsel; R. C. Lilly, banker; W. H. Marzolf, president, Consolidated Ink Co., a Brown & Bigelow subsidiary; Mr. Priester; and M. B. House, treasurer.

Mrs. Ward has been a member of the company's directorate since 1943. She since has participated actively



Mrs. Charles A. Ward







Peterson

Priester

Henderson

in the planning of company sales conferences and other events.

Progress Supervisors on Wheels

The Progress Lithographing Co. of Cincinnati recently increased the working area of its offset pressroom to 43,000 square feet. In this space are located six four-color presses, one five-color press, and a number of one- and two-color presses.

Because these presses are grouped according to the types of work being done, there is a considerable distance between the groups. This means that supervisory personnel have considerable floor space to cover.

The company recently made available an electric battery-powered cart, similar to those used on golf courses. When an okay is needed in one of the far corners of the pressroom, the supervisor gets there quickly on rubber tires instead of on shoe leather.

Century Buys Caspers

Caspers Tin Plate Co., Chicago, announced last month the sale of substantially all assets of its Century Display and Mfg. Division to Century Display Mfg. Corp., a new corporation wholly unrelated to Caspers, which was organized with Robert G. Platt as president. The price was not disclosed.

Realigning Sales Divisions

Eureka Specialty Printing Co., Scranton, Pa., has announced a realignment of its sales division.

A. R. Jeffery, Jr. has been named advertising and sales promotion director; J. W. Davison, art director, will be also responsible for the company's decorative lines and A. J. Krause, assistant to the general sales manager, will supervise the divisions headed by Mr. Jeffery and Mr. Krause.

Beckett Merges with Hammermill

The Beckett Printing Co. of Hamilton, O., has been merged with the Hammermill Paper Co., Erie, Pa., as reported in the June issue of Modern Lithography. William Beckett, president of the century-old Beckett Co., said the two firms will remain separate, with no changes in

"CHAMPION" Improved Deep Etch DOWN-DRAFT Lithographers Work Table

Completely eliminates

ALL HAZARDOUS FUMES

Check these advantages:

- Removes all hazardous fumes at their source—no odor in shop and offices.
- Table at convenient working height.
- Exhaust slot removes contaminated air through slot all around perimeter of working area at high velocity.
- Acid resistant KOROSEAL lined disposal pitches to a KOROSEAL lined 2" drain.
- Processing of plates on an everlasting smooth surfaced slate slab.
- Large heavy duty ball-bearing type built-in suction blower operates quietly.
 - Increases production.

with VARIABLE EXHAUST CONTROLLER

4 POPULAR SIZES (Other sizes upon request)													
No.	Slate Slab	Overall Dimensions (All 331/2" High)	Exhaust Blower Capacity: Cu. Ft. Air Per Minute	Motor H. P.									
1	30" x 40"	42" x 50"	2500	1									
2	42" x 50"	54" x 62"	3200	11/2									
3	50" x 60"	62" x 72"	4200	11/2									

72" x 92"

4800

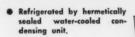
"CHAMPION" Improved TEMPERATURE CONTROLLED Developing Sinks

CONVENIENT TRAY DUMPING

Note how easily used solution is disposed of in full length drain trough. Saves time, promotes cleanliness and eliminates hazardous carrying of trays.

RAISED DIMPLES

in sink bottom are provided for supporting small trays.



60" x 80"

- Full length back splash and tray disposal trough.
- Heavy polished stainless steel, type 316, heli-arc welded.
- Fiberglass insulation.
- Storage compartment has its own thermostat.
- Attractively finished.
- 18" Double-Swivel soft flow mixing faucet services all trays.
- Expert Craftsmanship.
- Easy Access to refrigerating unit and automatic control.
- Automatic light in storage compartment.
- Service light in center compartment.
- Wash tray slides to desired location, drains into rear trough from any position.



Available with attached wash sink and negative viewer.

TEMPERATURE
MAINTAINED to a
FRACTION of a DEGREE

	Style	Film Size	Space Req.										
3	No. 1	20" x 24"	32½" x 74"										
popular	No. 2	26" x 30"	39" x 93"										
sizes	No. 3	30" x 40"	49" x 105"										



WITH ATTACHED WASH SINK



WITH ATTACHED NEGATIVE VIEWER



WITH WASH SINK AND VIEWER

manufactured by H. SCHMIDT & CO.

ESTABLISHED 1891

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either corporation set-up being contemplated.

Beckett sales total from \$9 to \$12 million annually, and the firm has 300 employes. Hammermill sales are about \$50 million annually. Purchase by Hammermill of about 80 per cent of the Beckett stock will make possible a strengthening and expansion program at the Hamilton plant, Mr. Beckett said.

Finch, Pruyn Advances Earl

Harold E. Earl has been advanced to plant manager of Finch, Pruyn and



Co., Glens Falls, N. Y., paper manufacturer. Mr. Earl also continues his duties as purchasing director for the company.

Pressmen's Union Eyes Litho

An exhibit stressing the International Printing Pressmen's and Assistants' Union's interest in the field of lithography was set up at the Union Industry Show in San Francisco, held the first week in May. The eight-booth display showed the entire lithographic process from camera through presswork. In charge were Fred Brooks of the Oakland Printing Pressmen's Union, officials of Northern California Printing Specialties and Paper Products locals, and representatives of the IPPAU's Tennessee school.

The show, which filled the city's new Brooks Hall exhibition area, featured AFL-CIO union label products and drew more than 350,000 people.

GA Research Started

The Stanford Research Institute, Menlo Park Calif., has established a graphic arts research program. Virgil P. Barta, past president of the Technical Association of the Graphic Arts and at one time head of graphic arts research at the Rochester Institute of Technology, has been named director. Studies of inks, lubricants, papers, photo-chemistry, and data processing will be conducted.

Stanford Research Institute is a privately endowed organization which undertakes research for industry and government.

Harris Press Installations

The following New York firms installed Harris-Seybold four-color offset presses during May:

Empire Color Lithographers Inc., 200 Varick St.,

Process Lithographers Inc., 175 Varick St., and

U. S. Printing and Lithograph Co., 575 Madison Ave.

The following firms installed Harris-Seybold two-color presses:

National Color Card Corp., 224 N.E. 59th St., Miami,

Colorpress, 200 Varick St., New York, and

The Baughman Co., 801 South Randolph St., Richmond,

W. A. Krueger Co., 3830 W. Wisconsin Ave., Milwaukee, has installed a Harris-Seybold five-color offset press.

Capitol Demonstrates Collator

Capitol Offset and Printing Supply Co. demonstrated the new Collamatic Eight-Star Automatic Collator in its downtown Washington display rooms in May. The company announced the availability of other models ranging from an eight-bin Model 800 to a 40-bin Model 4000. The unit is manufactured by Collamatic Corp., Wayne, N. J.

Chemco Previews Camera

Chemco Photoproducts Co., Glen Cove, N. Y., held a preview of its Marathon Roll Film camera at a buffet luncheon at the Morrison Hotel, Chicago, June 22.

Planograph Appoints Kay

Albert Kay, formerly with Darby Printing Co., Washington, has been appointed production and quality control supervisor of the Graphic Arts-Washington Planograph Company. An RIT graduate, Mr. Kay first came to Washington from Barton Press, Newark, N. J.

Ryan Advances Williamson

W. H. Williamson has been anpointed general manager for E. G. Ryan and Co., Chicago. His headquarters will be at the main offices of the corporation.

Mr. Williamson, has been western sales manager for Parsons & Whittemore Graphic Corp. of New York, and for 20 years prior to that was with American Type Founders Sales Corp., where he managed ATF branches in Portland, Ore., Buffalo, Baltimore and Cleveland.

W. H. Williamson Western Mgr. for E. G. Ryan & Co.



Mr. Williamson will have complete charge of the sales and service operations of the company, which represents leading manufacturers of American and foreign printing, lithographic, photomechanical and bindery equipment.

Champion To Open Subsidiary

Champion Pulp and Fibre Co., Hamilton, Ohio, has formed a subsidiary which will process and merchandise a line of cut size papers for offset, duplicating and small printing equipment.

Sterling E. Brown, general sales manager of printing papers for Champion, has been appointed president of the new corporation.

The firm, Champion Paper Specialties Inc., will distribute its products through the present outlets of the parent company.

Efforts are now being made to find suitable facilities to begin production as soon as possible. The new company expects eventually to employ about 100 people.

Washington GAA

The Washington Graphic Arts Association now reports 123 trade members with the most recent new members being Metropolitan Lithograph, Inc., Bladensburg, Md.,

PLAN NOW

so you and your key men can see the biggest Lithographic Exhibit the NAPL has ever put on ... so they can participate in a down-to-earth Lithographic Workshop Program.

27th Annual Convention and Exhibit of the NAPL—November 18th to 21st, 1959—Municipal Auditorium and Hotel Muehlebach, Kansas City, Missouri.

Your firm need not be a member to attend either the Convention or the Exhibit, Every NAPL Convention is held in an atmosphere of "Friendship Village" where lithographers and those who sell them their wares come together to share experience and to show and demonstrate new materials, methods and machinery. This year's show promises to be tremendous. Here is a list of exhibitors.

Addressograph-Multigraph Corporation
American Speedlight Corporation
American Type Founders Co., Inc.
American Zinc Institute
Anchor Chemical Co., Inc.
ANSCO, A Division of General Aniline and Film Corp.
Azoplate Corporation

Russell Ernest Baum, Inc. Bourges Color Corporation Bridgeport Engravers Supply Company W. A. Brown Manufacturing Company Burke and James, Inc.

Caprock Developments
Chesley F. Carlson Company
Chemco Photoproducts Co., Inc.
Consolidated International Equipment and Supply Co.
Consolidated Water Power & Paper Co.
Craftsman Line-Up Table Corporation

Dahlgren Manufacturing Co. Dana Industries Direct Reproduction Corporation The Douthitt Corporation E. I. duPont de Nemours & Co., Inc.

Eastman Kodak Company Electronic Mechanical Products Co. Foster Manufacturing Company

Gane Brothers & Lane, Inc.
William Gegenheimer Company, Inc.
Jos. Gelb Company
General Binding Corporation
The Gevaert Company of America, Inc.
C. P. Goerz American Optical Company
Graphic Arts Employment Service

Haloid XeroX, Inc.
Hamilton Manufacturing Company
Harris-Seybold Company—A Division of HarrisIntertype Corporation
Hopper Paper Company
Hulen Line-Up Table Company
Philip A. Hunt Company

Ilford, Inc. Interchemical Corporation—Printing Ink Division Iomac, Inc.

Kemart Corporation Kenro Graphics, Inc. Kimberly-Clark Corporation Kreonite, Inc.

Jones Graphic Products Company

Lanston Monotype Company
The Lawson Company—A Division of Miehle-GossDexter, Inc.
Litho Chemical & Supply Co., Inc.
Lithographic Technical Foundation
Lithoplate, Inc.—Subsidiary of Harris-Intertype Corp.
LogEtronics, Inc.

Macbeth Arc Lamp Company Mark Specialty Company Miller Printing Machinery Company Minnesota Mining & Manufacturing Co.

National Carbon Company—Division of Union Carbide Corp. Natural Lighting Corporation nuArc Co., Inc.

Ortman-McCain Company Oxford Paper Co. Oxy-Dry Sprayer Corporation

Harold M. Pitman Company Polychrome Corporation Printers' Sales Ideal Service Co. Printing Material Corp. Printing Developments, Inc. Printing Impressions Process Cameras & Equipment, Inc.

Raden C Auto Step Co.
R B & P Chemical & Supply, Inc.
Repro Graphic Machines, Inc.
Riegel Paper Corporation
Roberts & Porter, Inc.
Robertson Photo-Mechanix, Inc.
Roll-O-Graphic Corp.
Royal Zenith Corporation

H. Schmidt & Company Sinclair and Valentine Co. The Strong Electric Corporation Sun Chemical Corporation

True Color Publishing Company

Ulano Graphic Arts Supplies, Inc. Unitronics, Incorporated

Vari-Typer Corporation Varn Products Co., Inc.

S. D. Warren Company W. M. Welch Manufacturing Company Western Newspaper Union

Write today for the complete program and further information

National Association of Photo-Lithographers

317 West 45th Street

New York 36, N. Y.

Georgetown Printing Co. and Ginn's-Stockett-Fiske, of Washington.

The association, which changed its name from The Typothetae of Washington in 1934, is again considering an organization name change to The Printing Industry Association of Washington, D.C., Inc.

Members of the association visited the new plant facilities of the Washington Evening Star, June 8.

The officers and board of directors of the association are already making plans for the 1960 PIA national convention, to be held at the Sheraton-Park Hotel, October 24-27, 1960.

Printing in Hawaii

A recent bulletin from the U.S. Department of Commerce showed that the printing industry in Hawaii ranks second in employes and payroll after the food industry group.

In the printing industry, lithography ranks third in number of establishments and first in receipts. Total receipts for lithography are \$1,-899,000; totals for letterpress, gravure and silk screen are \$1,257,000.

Latmer Litho Reorganizes

Latmer Printers and Lithographers Inc., Pittsburgh, reorganized its management last month and appointed three new vice presidents.

The three named as vice presidents and members of the executive management committee are Jerome J. Migliozzi, George J. Sokol and Emuel J. Zullo. In addition, three new directors were appointed. They are Samuel Krimsly, John E. Weinrich and Dominic Zullo, chairman.

MPA Hears Hoch

The Master Printer's Association of the Printing Industries of Philadelphia, recently heard a speech by Fred W. Hoch, graphic arts management consultant. He addressed the group on "Why Sell It When You Can Give It Away?", describing the plight of printers who ignore the sound business standards on which industry's trade customs are based.

Mr. Hoch has devoted much time to studying estimating procedures, cost standards and pricing standards in industry.

Oxy-Dry Advances Wilson

Gordon W. Wilson



Gordon W. Wilson has been appointed vice-president of Oxy-Dry Sprayer Corp., Chicago. He was formerly general sales and advertising manager for the company.

Mr. Wilson is a member of the Chicago Litho Club, the Printers' Supplymens Guild of Chicago and president of the Chicago Club of Printing House Craftsmen.

A & J Enlarges

A & J Printing Co., Cleveland, has announced expansion plans that include several pieces of new equipment and an increase in floor space from 3,200 sq. it. to 5,400 sq. ft.

Joseph Fierman, owner of the company, and a lithographer for almost



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- Fully corrected apochromat
- 4" to 70" focal lengths
- Hard coated air spaced optics
- For all color or black and white applications

C. P. GOERZ AMERICAN OPTICAL COMPANY Inwood 96, Long Island, New York Western States Distributor: LA GRANGE, INC., Hollywood 39, Cal.

Midwest Distributor: WHITE PHOTO SALES, INC., Chicago 13, III.

Canadian Distributor: W. E. Booth Company Limited, 12 Mercer St., Icronto, Can.

Celebrates 40th Anniversary



Norman-Willets Co., Chicago, photographic equipment supplier; celebrated its 40th anniversary at a recent luncheon. In attendance were C. A. Listug, president (top left); W. H. Roegner, vice president (top right); J. A. Sykora, treasurer (lower left) and C. J. Misek, secretary (lower right).

To commemorate the anniversary, the firm has issued a 164-page product bulletin.

LTF Meets in Montreal

The executive committee of the Lithographic Technical Foundation took the opportunity of discussing its aims and activities with lithographers and suppliers in Montreal, at a meeting there on May 12. It was the first executive meeting of LTF in that area.

William H. Weber, new executive director of LTF, told of his study of what had been done and what needed to be done. He spoke of a survey which had been made of a cross section of LTF members and non-members to find out what the industry thinks of the Foundation. All this was done, he said, to determine how LTF could improve its service to the industry. Most significant in the responses to the questionnaires was the fact that 80 percent felt LTF had contributed to a major degree to the advancement of lithography, 20 percent that it had contributed to a medium degree. In no instance did the replies indicate that LTF had contributed to such advancement only in a minor degree.

Fundamentally, he pointed out, "You cannot escape the fact that

LTF's research and educational programs are sound." Mr. Webber spoke of the fact that LTF is owned by the industry. Lithographic plants and suppliers really run the Foundation through their elected representatives on the Board of Directors.

Charles Shapiro, educational director of LTF, touched briefly on the educational functions of the Foundation. First, he told what the LTF does not do, that is, conduct courses or run schools. However, it does assist and encourage the establishment of training programs in schools and in plants. In fact, he said, it has assisted the school in Montreal. The Educational Department was responsible for preparing and producing training texts, and designing and producing accompanying training materials.

"The lithographic industry is unique in that it has actually published texts, training materials and audio-visuals for the training of craftsmen in all the lithographic trades."

Michael H. Bruno, LTF's research director, spoke of the activities and program of his department. The work was divided among seven divisions; physics and quality; photographic and color reproduction; metals, coatings and surface chemistry; paper, ink and press relationships; instrumentation; reduction to practice; and administrative.

Big developments in lithography have come, he said, in the area of platemaking where tremendous improvements had been made. He emphasized the present trend in the industry toward the use of aluminum plates and pointed out that the most popular plate now in use for general lithography is the copperized aluminum plate. He mentioned some troubles that were being encountered with this plate and described the new Nichohol treatment that has been developed to eliminate these troubles.

In the area of paper and ink, said Mr. Bruno, LTF has done considerable work on the development of instruments to measure paper properties important to printing, such as the paper hygroscope, register rule and pick tester. He described work

Receives Cooperation Award



Harold Mallon (I) receiving "Certificate of Cooperation", presented by the International Cooperation Administration, from Engkon Sutadiredja (r), chief of Indonesian Government Printing Office.

on the new moisture pick tester. He also mentioned a study of the forces involved in ink transfer from one surface to another. Other subjects being studied include tinting, scuffing and gloss. He described work with new dampening systems and pointed out that parchment paper covers on dampeners are being used extensively now by most plants. The Mullen dampening system is being tried in some plants. The newest system that showed considerable promise was the Dahlgren system which was based on the old Goedike patents and fed the water into the ink. He made the prediction that within the next several years, the dampening system on lithographic presses will be completely changed.

Mr. Bruno stated that 1958 was a good year of accomplishment and that 1959 promises to be even more productive, with breakthroughs expected in the areas of dampening, tinting, ink transfer and quality.

George J. Ebert, 84, retired vice president at Western Lithograph Co., Los Angeles, died May 30.

POPAI Surveys Agencies

In a three part report, "The Role of Point-of-Purchase Advertising in Today's Advertising Agency," the Point-of-Purchase Advertising Institute has documented information on current practices of advertising agen-

cies, point-of-purchase producers and advertisers.

Material reported in the study was obtained from personal interviews with advertising agency executives, and written questionnaires of the association's producer members as well as national advertiser associate members.

It was found that most agencies regard their role in this field as advisory, however, clients are receptive to agency recommendations for the use of point-of-purchase advertising in almost every case.

On the other hand, producers of point-of-purchase material generally do not welcome agency activity in the field.

Furthermore, advertisers feel that, while agencies have a place in coordinating point - of - purchase with other media, they prefer to deal directly with the producers of such material themselves.

PII Annual Meeting

The theme of the 34th annual meeting of the Printing Industry of Illinois division of PIA, held recently, was "Let's Be Practical." The topic was discussed by a panel, with a question and answer period following. On the panel were Frank Pfeiffer, Reynolds & Reynolds, Dayton, O.: Michael H. Bruno, LTF: Carlton Mellick, the Miehle Co.: Olin E. Freedman, graphic arts consultant; Dr. Raymond Thurow, personnel and recruitment specialist; J. Norman Goddess, general counsel for PII, and Donald C. Miller, Continental Illinois National Bank & Trust Co., Chicago.

At the meeting, officers were elected. John H. Goessele was reelected president, and O. R. Sperry, and J. W. Patterson were elected vice presidents. Walter Steinmeyer was elected treasurer and James X. Ryan, secretary and general counsel. Ten printing company executives were elected to two year terms on the 20-man board of directors.

William Gove, nationally known sales consultant, was dinner speaker. The event was further highlighted by presentation of the Illinois organization's first award for outstand-

ing contributions to progress in the field of printing management. First recipient of the award was Col. H. R. Kibler, administrative vice president of W. F. Hall Printing Co., Chicago, immediate past president of Printing Industry of America.

Mr. Ryan announced authorization by the board of an expenditure of \$2,500 for use in the long standing project to interest some Chicagoarea institution of higher learning to establish a school of printing management on its campus. Plans were also approved for expanding the association's statewide evening educational program for printers.

Mergenthaler Advances de la Pena

Anthony J. de la Pena has been appointed assistant to the vice president in charge of overseas sales for the Mergenthaler Linotype Company, Brooklyn.

Mr. de la Pena was formerly president of the Buenos Aires branch.



*Strong Camera Lamps cut exposure time to as little as 1/6th. Sufficient intensity to punch through dense Kodachromes. Illumination variables entirely eliminated. Constant color temperatures. Accurate control of densities, regardless of line voltage variations.

*Scientifically precision engineered reflectors assure extreme uniformity of light coverage on your

work area. Exclusive with Strong.

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*Strong Printing Lamps guarantee sharper reproduction. Dot undercutting eliminated. Overhead

models. Burn in normal position, avoiding smoking of reflector and deposit of ash on surfaces in
light path. Models for Rutherford and Monotype Huebner photo composing machines assure
precise control of intensity for accurate repeats.







Bowling Awards

Champion Bowlers at Consolidated Lithographing Corp., Carle Flace, L.I. Ten teams vied for the league crown.

Walker Demonstrates Plates

E. H. Walker Supply Co., Inc., of Washington, has been demonstrating the new DuPont Photopolymer Plate.

Krueger Sales Increased

Sales of W. A. Krueger Co., Milwaukee lithographers, increased in the first nine months of the present fiscal year, but net income showed a decrease, according to an interim stockholders report.

Sales totaled \$3,953,842, compared with \$3,636,591 in the same period last year. Net income was \$135,574, equivalent to 47 cents a share, against \$176,590, or 62 cents a share last year.

Nine Scholarships Awarded

Nine top ranking candidates were awarded scholarships last month by the National Scholarship Trust Fund of the Education Council of the Graphic Arts Industry.

The winners were Clinton G. Anglin, Tucson; David P. Hull, Grand Itapids, Mich.; Robert J. Jankowski, Van Etten, N. Y.; Alfred R. Klinke, Palo Alto, Cal.; William O. Keifer, Queens Village, N. Y.; Paul J. Levy, New York; John A. McHenry, Bufalo; William W. McKnight, III, Normal, Ill. and James J. Kitchen, San Bernardino, Cal.

USGS Graph Strip Process

Charles Bennett, Reproduction Division Chief of U. S. Geological Survey, reports new and vast improvements in the USGS graph-strip process, with sufficient development to turn it over to private industry.

The process includes aluminum foil laminated to a vinyl base.

To Graduate 120

The Chicago Lithographic Institute presented graduation certificates to 120 students at evening commencement ceremonies June 19. Carlton Mellick, vice president and sales manager, the Miehle Co., division of Miehle-Goss-Dexter, Inc., Chicago, was the speaker.

Henderson Joins Monadnock

Kenneth W. Henderson has been appointed sales promotion manager for Monadnock Paper Mills Inc., Bennington, N. H.

Mr. Henderson was formerly codistrict manager of New England for the Eastern Corp. He also served as advertising and sales promotion manager for Interchemical Corp.

He will serve Monadnock merchants who distribute offset, greeting card and commercial printing papers in the New York, New Jersey and New England areas.

Interchemical Appoints Two

Zeno W. Wicks, Jr., has been appointed manager of Interchemical Corp.'s newly established commercial development department.

Charles S. Rowland has been appointed director of the Interchemical Central Research Laboratories to replace Dr. Wicks.

According to the company, the commercial development department will investigate and develop the commercial possibilities of new products and will participate in the initiation

of new product projects involving research.

AIGA Exhibit

The "50 Advertisements of the Year" were on display during June at the American Institute of Graphic Arts' 17th Annual Design and Printing for Commerce Exhibit in the Time Inc. gallery in New York.

The 50 were chosen by a jury of the AIGA for "successfully demonstrating integration of the original concept with excellence of production."

Miller Appoints Maceda

Joseph R. Maceda has been appointed to represent Miller Printing Machinery Co. in the New York area.

Mr. Maceda previously was associated with the graphic arts industry and is well versed in the printing equipment field. His headquarters will be in the Miller branch office at 75 Varick St., New York.

GAYEA Elects Officers

New officers of the Graphic Arts Young Executives Association, elected at their annual meeting on May 26, are Charles Fowle, Republic Litho, president; Richard Doerfer, Olsen Publishing Co., vice-president; Edwin Mueller, Jr., Mueller Engraving, treasurer; and Robert Mueller, Mueller Engraving, secretary.

New Board members are Mr. Mueller and Raymond Leannah Kalmbach Publishing Co

Goodyear Opens Roller Plant

Goodyear Rubber Co. of California has established a plant in San Francisco to manufacture rubber rollers for printers and lithographers. Clark Tyler is in charge of the operation. The California Ink Co., which will distribute the plant's total output, has given technical advice on production.

ATF Appoints Three

Three new sales representatives have been added to the staff of the American Type Founders Co. branch in Chicago. They are Keith C. Van Vuren, serving southern Wisconsin

Two Challenge State System

Stecher-Traung Lithograph Corp., San Francisco, has joined forces with the Cardoza Bookbinding Co. to issue a new challenge to the state of California's system of printing its own grammar school textbooks. Cardoza is the West's only privately owned fully mechanized edition bindery. Its president, George L. Levison, acting in behalf of Stecher-Traung and his own firm, has offered to manufacture a series of language books for \$706,630 less than the California State Printer's estimated cost of \$2,679,800.

Involved are students' and teachers' editions of four books, for grades three, four, five and six, a total of nearly three million individual volumes.

According to the detailed quotation sheets, the pupils' books run from 288 to 336 pages (finished size 611/16 x 9") and contain four colors on 96 to 144 of the total pages. Teachers' editions of each contain an additional 168 pages in two colors. State Printing Office estimates ran from \$.83 to \$.88 for printing and binding the pupils' editions, while the Cardoza-Stecher-Traung bid ranged from \$.6205 to \$.6567. The state's estimates on the teachers' editions, which involve shorter runs as well as additional pages, ranged from \$1.65 to \$1.70, while the Cardoza-Stecher-Traung bid ranged from \$1.0934 to \$1.1595.

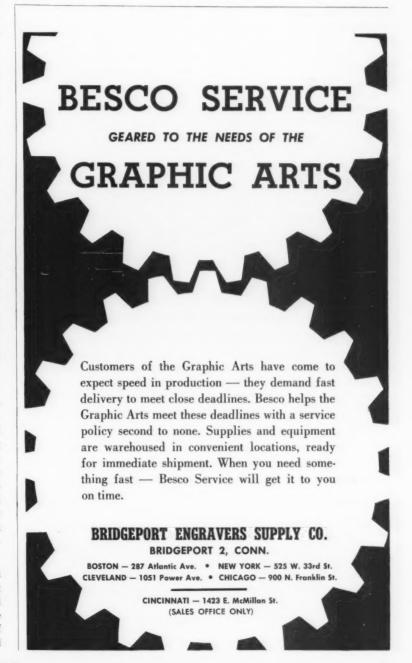
Replying to the Cardoza-Stecher-Traung proposal, the California State Department of Finance, which supervises the state printing plant, held that many of the factors underlying the two sets of figures were not identical. It stated that if the state plant made its estimates on the same basis as Cardoza and Stecher-Traung had made their bids, its figures would come out \$190,500 lower than that presented by the private manufacturers, or a total of \$1,879,525.

Among the different factors cited were lower quality stock and binding materials specified by Cardoza and Stecher-Traung; overlooking of state sales tax (which the Department of Education is required to pay and which would amount to \$78,929); overlooking of freight charges; and the fact that figures for production were based upon single runs rather than one original and several re-runs.

The State Department of Finance also explained that the State Printer's estimates are for budget purposes and must make allowance for rising costs over an eight-year period, while the Cardoza-StecherTraung bid carried the provision that it would be adjusted in case of rising (or reduced) labor and material costs.

The question as to whether the California State Board of Education can, under the present law, give the printing contract to private companies is unsettled.

An opinion from the State Attorney General is still forthcoming.



GPI Opens New Plant







Ronald Saunders

General Printing Ink Co., a division of Sun Chemical Co., opened a new ink plant at 20 North Union St., Rochester, in June. The new plant will offer a complete line of letterpress, lithographic, flexographic and rotogravure inks, according to the company.

Ronald G. Saunders has been named general manager of the new plant, with Richard Saunders serving as branch manager. Mr. Saunders has been associated with Sun since 1937, when he joined the General Printing Ink Division in San Francisco. He was subsequently transferred to Rochester, as GPI sales representative in the Upper New York State area.

Richard Saunders is a graduate en-

gineer from the University of Rochester. He has been associated with General Printing Ink in the Rochester area since 1952.

Brown & Bigelow Advances 3

R. J. Henderson, Sr. has been named acting general sales manager by Mrs. Charles A. Ward, newly elected president of Brown & Bigelow Co., St. Paul. Mr. Henderson was a vice president of sales for the company before his recent appointment.

R. H. Woodlief, district sales manager of the Oakland, Cal., district, has been named manager of the company's home office district in St. Paul.

William R. Knutsen, of the Chicago special sales office, has been advanced to Minneapolis district sales manager of the Brown & Bigelow Company. (Other story on page 91).

O. EDWARD JOHNSON of Darby Printing Company, Washington, was recently awarded the "Distinguished Salesman Award" by the Sales Executives Club of Washington.

Wausau Appoints Two





William V.

John Larson

William V. Arvold has been elected vice-president of manufacturing by the board of directors of the Wausau Paper Mills Co., Brokaw, Wis.

Mr. Arvold has been associated with the firm since 1953, first as technical director, and was promoted to mill manager in 1957.

John J. M. Larson has been appointed advertising and sales promotion manager at Wausau, according to a company announcement.

His duties involve the establishment of an advertising department at Brokaw and the creation, direction and distribution of all company promotional efforts.

A VALUABLE REPRINT ON MASKING, COLOR SEPARATION

• Readers, if you are interested in color, here's your chance to get a valuable instruction booklet on all phases of masking and color separation for transparent and reflection copy, reprinted from a series of articles in this magazine by John M. Lupo, Jr. The easy to understand charts, diagrams and photos are important in themselves. Discussion of theory of color...filters...how to make a color chart... definitions of terms...figuring gamma...equipment needed...making the filter negatives...two- and three-stage masking...color separations, make this a practical workbook that should be in every shop interested in process color by offset. Just \$2.

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PTI Exhibition Announced



The young lady in the photo is pointing out the closing date for entries in the Eighth Annual P.I.A. Printers and Lithographers Self-Advertising Exhibition and Awards, to be held in New York in September.

Macbeth Retains Tobias

Philip E. Tobias, engineer, designer and inventor, has been retained as a consultant by Macbeth Arc Lamp Company, Philadelphia. He will direct Macbeth's expanded Graphic Arts Research and Development program. He was formerly with Edward Stern & Co., Philadelphia, and is the newly elected president of the Technical Association of the Graphic Arts.

Strobridge Officers Elected

James G. Strobridge has been elected chairman of the board of Strobridge Lithographing Co., 110 year old Cincinnati firm.

Other officers are Harold A. Merten, president; Andrew Donaldson, Jr., vice president; Bernard Unger, secretary and Clarence Betz, treasurer.

Chicago Lithos Win Pay Raise

A new two-year contract between Local No. 4, Lithographers' of America, and the Chicago Lithographers Association has been signed in Chicago. It grants a \$4 a week raise, retroactive to May 1. The new scale ranges from \$133.75 to \$164.85 for a 35-hour week.

The contract also provides for an additional contribution of \$2 per employee a week to the union healthwelfare fund, bringing the total to \$4.50. The new contract now speci-

fies a three-weeks paid vacation (effective this year) after one year of service, instead of two years. An additional four percent pay raise, ranging from \$5.13 to \$6.34 a week will go into effect May 1, 1960.

ALEXANDER MURRAY, an Eastman Kodak research scientist who was named the outstanding person in the graphic arts industry for 1951, died June 11, after a long illness.

Napim Re-elects Flint

The National Association of Printing Ink Makers has re-elected Robert H. Flint, of Flint Ink Corp., Detroit, as president.

Other officers re-elected were James D. Yates, Martin Driscoll & Co., Chicago, vice-president and Matthew J. Leckey, Sinclair & Valentine Co., New York, treasurer. Carl Aneshansel was re-elected president of the National Printing Ink Research Institute.

GOLDENPLAST*

A new ORANGE masking plastic for layouts that

"HOLDS-

*GOLDENPLAST masking plastic – new formulated medium, replacing Goldenrod papers for those difficult "hard-to-register" jobs.

SEE THE DIFFERENCE!—Save Time—Save Money—today! Get GOLDENPLAST the orange masking plastic.

Shoot Size

See the difference in features —

- Solves Misregister problems (in all climatic conditions)
- Available for all press sizes
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- Used for dropouts
- Thin base
- · Available in rolls too

Special production method makes GOLDENPLAST available at these competitive low prices—

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All sheets cut square and packed flat at no add't onal charge.	Package	Price	Sheet Size	Quantity	Price	
11" x 14"	100	\$ 8.50	42" x 54"	50	\$45.50	
14" x 17"	100	12.00	46" x 56"	50	55.50	
16" x 20"	100	14.00	48" x 60"	50	62.00	
20" x 24"	100	20.50	54" x 60"	50	65.00	
20" x 27"	100	22.00				
24" x 27"	100	30.00		ROLLS		
24" x 30"	100	31.50	54"-2.1	00 ft. \$ 25	00	
271/2" x 31"	100	38.50	54" x 2		.00	
27" x 38"	100	41.00	54" x 5			
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40" x 50"	50	41.00		s Subject to Chang	10	



ALBERT C. WORNER has been named vice president and advertising manager of Security Lithograph Company, San Francisco.

TECHNICAL BRIEFS

(Continued from Page 53)

FLUFFING OF LITHOGRAPHIC PAPERS. Modern Lithographer and Offset Printer LV, No. 1, January 1959, pp. 11, 12, 13 (3 pages). This article gives a brief discussion of the causes and preventive means to reduce or eliminate fluffing.

TECHNIQUE FOR RUNNING PRINT QUALITY TESTS ON A LITHOGRAPHIC PRESS. George W. Jorgensen. TAPPI 41, No. 11, November 1958 (Reprints available at \$1). An experimental pressroom procedure for preparing lithographic test prints is described. This method was developed at the Lithographic Technical Foundation for a testing program on the print quality of halftone images on book papers. Details are discussed on the handling and storage of the paper samples, the preparations for the press run, the press run and the print quality tests applied to the press sheet images. An analysis of variance of objective print quality measurements on the control sheets indicated good reproducibility of the



printing conditions. Subjective visual examination of these sheets also indicated good reproducibility. The paper concludes with some suggested refinements of the test procedures.

FACTS ABOUT PAPER IN ROLLS. W. H. Bureau. Graphic Arts Monthly 30, No. 4, April 1958, pp. 20, 22, 24, 28, 30 (5 pages). The economies inherent in printing from rolls can be realized for certain types of work provided proper care is taken in handling the rolls to avoid core collapse, flattening, and uneven humidity changes. A number of paper defects leading to web breaks and other troubles are described. The adhesive used for splices in a roll should be correct considering the type of process. The relationships between roll diameter, width and weight are discussed, and a formula given with a table characterizing papers of various types by assigning values for substitution in the formula. Paper in rolls is sold on the basis of actual weight of paper including the wrapper and non-returnable core.

Using Magnetic Inks. Murray Adler. Modern Lithography 27, No. 2, February 1959, pp. 64, 65, 131 (3 pages). Magnetic inks are used to give a magnetic signal and are different from conductive inks (which conduct electricity) or metallic inks (which have a metallic lustre). They are made with magnetic iron oxide as the pigment. It is a poor worker and special ink formulation must be employed. Magnetic inks are to be used in an electronic accounting process

ACCURATE SIZE

(Continued from Page 40)

copy. If that proves to be so, the scale readings should be noted and the plate should be retained for measuring as accurately as one needs for the work in hand.

The above experiment and adjustment of focus if necessary, is then repeated at same size and also at maximum enlargement. From these three final test results a great deal of useful information can be gained.

Siz

The focus of all three negatives being known to be sharp, we now check for size by laying one of the film copies of the millimeter rule first upon the original test copy, to check that it has not expanded or contracted, and then upon its image on one of the test negatives. Suppose, for example, our small sized test was made at 1/4 scale; then each division of the original rule should fit four divisions of its image on the test negative, but of course it will not be absolutely exact (nothing ever is!) and if it is quite close, perhaps 124 divisions of the original rule may coincide, as closely as we can check with a high power magnifying lens, with 495 divisions on the negative. We would check the coincidence by taking one side (say the left) of the original divisions in each case, because from the left of one line to the left of another is the same as measuring from center to center.

Simple arithmetic then tells us the scale of the job (but a small calculating machine does it a whole lot more easily—and more accurately in my case!) namely:

$$\frac{124}{495}$$
 = .2505

And that, of course, represents 25.05 percent, which is very well within the tolerance of .01 percent which may reasonably be expected of an excellent camera, but it may, or may not, be within the tolerance that we require for our extremely accurate job.

If 127 divisions of our original rule were found to coincide with 505 divisions on the negative, then the percentage calculates to 25.15 percent which is outside the .01 percent tolerance, but may well be accurate enough for normal work.

Readers will no doubt appreciate how the above method can be applied with an auto-focus camera. One cannot usually set it a given distance "out of focus" and so one puts the test plate at an angle in the image plane by arranging the bottom of it ½" nearer to the lens and the top ½" farther from it, and if the test results show errors, one either decides to be one's own mechanic and to adjust it, or one calls in the makers. In general auto-focus cameras are less convenient for very precise size work and if one also has any other type it is perhaps better to use it for this special purpose, but it is at least useful to be able to check an auto-focus instrument if one suspects that it is not quite in adjustment, apart from our present accurate size problem.*

NEXT MONTH we shall apply the result of our tests to confirming the stated focal length of the lens and, if necessary, re-computing the focusing scales.

HOGAN-KAUS

(Continued from Page 47)

We leave all the hiring and firing to our superintendent, Jack Palmer. He's a first-rate pressman with a great deal of experience. Immediate supervision of the camera and platemaking department is handled by Bernarr Walzberg, an extremely inventive and skilled technician.

Their work includes keeping the plant quality-conscious. They sacrifice speed to quality in a show-down. About 90 percent of their work is color—about a quarter of that process color.

Customers are welcome in the plant. The partners find that they can often save press time on color jobs by dashing out and calling for a customer and bringing him down to the plant to okay a job right on the press. Another time-saving technique is often used for customers who require delivered color proofs. Hogan and Kaus take the proof hot off the press, rush out to a car, and drive to the customer's office. One holds the car (parking is difficult in San Francisco) while the other takes the proof in to the customer, then phones back to the plant to go ahead with the job or make any necessary change.

Both young men brought good graphic arts backgrounds to their partnership. Their fathers operated graphic arts businesses in the same building where the Hogan-Kaus plant is located. Frank J. Hogan owned the Keystone Press, letterpress printing firm, from the time he established it in 1919 until he sold it to Hogan-Kaus last year.

Young Hogan had management and sales experience in his father's company and in a San Francisco lithographic firm. Young Kaus worked in production departments of several lithographic firms before getting four years of sales experience and taking courses in business management, psychology, and advertising. By the time they got together over a glass of beer to talk about establishing a business of their own, they had developed an idea: "We both thought that there was a place here in San Francisco for service keyed directly to advertisers' needs."

The idea worked. Today they have as loyal customers many of the city's most highly respected firms. Their plant is well equipped and growing. In addition to the five presses they have a camera department, and a plate-making room that is currently being enlarged and equipped with a new ATF light table, vacuum frame and plate whirler. They buy all their composition. When they purchased the senior Hogan's letterpress business last year they gave the letterpress equipment a brief trial, then sold that too.

The elder Hogan now works for his son's firm as a salesman. He converted almost all of his longstanding letterpress accounts without difficulty, and found lithography opened new doors to him. *

for sorting. They are also used for recording information on a magnetic band. The ink must have good coverage and must lie smoothly and print sharply or it will cause errors in the sorting process.

Lithography—General

*BACKING PLATE FOR A PHOTOLITHO-GRAPHIC CHASE. U. S. Patent 2,869,448, February 18, 1957. Roger F. Bang, Houston, Texas. Official Gazette, Vol. 738, No. 2, January 20, 1959, pages 680-1, 2 pp. 1. In a backing plate for use in a chase of a photo composing machine for lithograph plate production, a sheet of transparent rigid plastic, a flexible sheet of thin transparent plastic sheeting of the same dimensions as the rigid sheet anchored at its margins to the margins of the rigid sheet and on the side of the rigid sheet abbuting the negative to be reproduced and a plurality of air escape ports through said rigid sheet inside of said anchored margins.

Graphic Arts-General

LIGHTING FOR CONTROL AND MATCHING OF COLORS. Philip E. Tobias. Printing Equipment Engineer, Vol. 88, No. 6, March 1958, pages 74-5, 2 pages. The color viewing studies of the R. and E. Council and Illuminating Engineering Society are discussed. An electric equivalent of slightly overcast north sky daylight is considered best. A primary source approaching this most closely is filtered incandescent light. A secondary standard considered satisfactory for routine checking is a mixture of fluorescent

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Finest Hydro-Pressed Plastic Sheets

VINYL-ACETATE-POLYETHYLENE-BUTYRATE-P.V.C.

SPLCORP is recommended as the only dimensionally stable substitute for glass, when Stripping Positives or Negatives for Multi Color Work, if close registration is desired. A few advantages enjoyed by the Lithographic Craftsman when using SPLCORP sheets are: Easy Handling, Increased Production, Job Assurance, No Breakage and No Storage Problems. SPLCORP is manufactured in thickness ranging from .005" to .1", and is available in Transparent, Translucent, or Opaque, with either a Mirror Polished or Matte Finish on one or both sides.



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The skills of long-time Union craftsmen employed in these Association shops offer you unmatched quality

The versatility of these experienced plants offers you the assurances you need on "tough" or "problem" jobs

You affect economies, since idle time is at a minimum

Because Association plate shops operate presses for proving only, they are not competitive with you, the lithographer.

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"Good offset Lithography starts with GOOD plates"
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- LITHO-ART, INC.
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 CH 2-7650
- LITHO-TONE CORP.
 333 Hudson Street, New York WA 9-7601
- METROPOLITAN OFFSET PLATE SERVICE, INC. 263 Ninth Avenue, New York WA 4-2006
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- OFFSET ENGRAYERS
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Dot Etch Tables

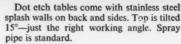
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and incandescent bulbs, 100 foot candles at the copy plane are suggested.

*Xerography. R. M. Schaffert. Supplement to the Encyclopedia of Chemistry, Reinhold Publishing Co., New York, N. Y., pp. 317-318 (September 1958). IBM Journal of Research and Development, Vol. 3, No. 1, January 1959, page 100. A brief description of the origin and development of the xerographic printing process is given, followed by a listing of the sequence of process steps. Preparation of the photosensitive surface is discussed, and a number of photoconductive materials used in xerographic plates are listed. Techniques for sensitizing the plates are briefly reviewed. A variety of developers are discussed. Applications of the process to X-rays and electron optics are mentioned.

RESEARCH AND SERVICE OFFERED BY NEW IPI COLOR CENTER. Anonymous. Gravure, Vol. 5, No. 1, January 1959, page 47. Interchemical Corporation has established a central headquarters for basic research, consultation, and information in the field of color. Director will be F. L. Wurzburg, Jr. Location is at Interchemical Central Research Laboratories, 432 W. 45th St., New York City.*

HALLENBERG

(Continued from Page 33)

side" and the "contact room," the latter being used also for burning in plates.

Another innovation is the specially constructed stock room. This area, adjacent to the loading dock, is parallel to the pressroom. Humidity is controlled at 48 to 52% so that paper is maintained in excellent condition.

A special set of doors separates the loading dock from the pressroom to keep out drafts and maintain temperature at 72°. Pressroom equipment includes two 10 x 15" Multiliths, a 17 x 22" ATF Chief and a 24" Chief, plus a new 31 x 44" Consolidated Diamond Swiss press.

The expansion, at 11th and Chateau Sts., which is double the space in the company's former quarters at 114 N. 7th St., includes new equipment in every department. A Challenge Hydraulic cutter has been added, as well as lineup and layout tables in the stripping department.

Special Features

Along with the standard equipment, however, go the special ideas which the two men developed to smooth out work flow to fit their own

particular needs. In the layout department they added a shelf which runs the full length of the wall next to a row of lineup and layout tables. The plant includes a well equipped lunch and recreation room for employes.

The Acousti Flo Bar heating and air conditioning system in the offices is the first of its kind to be installed in the area. A neat, slim air flow bar on the ceilings in the offices dispenses both heat and air. With one furnace for the plant and the other for the offices, the temperatures can be controlled to meet specific needs. The system provides for both humidity control and air conditioning throughout the plant and offices. At present it is in the offices only.

Expansion is possible with the new structure. A series of conference rooms can easily be converted to sales offices, as space is required.

Because the bulk of the company's work is general advertising jobs, Mr. Benz, who is in charge of production, says a production control board wouldn't be practical, because deadlines usually are too rigid. "We try to operate our system on a minimum of administrative cost and effort, because so many of our jobs must meet deadlines," he explained.

Mr. Groerich was one of the founders of the company when it was organized in 1947. Mr. Benz also has been with the company from the start. —Mildred Weiler

BILLBOARDS

(Continued from Page 46)

Copy is changed simply by peeling off the printed film and replacing it with a new design. Any size up to 60 x 144 inches can be produced. Standard 24-sheet posters are done in only four sections and a 6-sheet poster is done in only one piece.

New president of OAA is George L. Knapp, Jr., a Tulsa, Okla., operator of extensive outdoor facilities throughout his home state. He succeeds O. S. Hathaway, Middletown, N. Y., who was advanced to chairman of the board. Willard Billingsley, Little Rock advertising man, was re-elected treasurer.



Good reproduction depends on many things-one of the most important is a good clean halftone dot. With Enco Pre-sensitized Aluminum Plates you get a crisp dot, free of halation, The Enco fine grain makes this possible. In the printing frame, this grain allows all the air to escape between film and plate, giving perfect contact. On the press, this grain allows better control of balance between ink and water. Plates run clean, impressions are sharp. Enco plates, both negative and positive working, are available for most presses in thicknesses of .0075" or .012" depending on size.

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EDITORIAL

(Continued from Page 29)

persons could formulate plans for such a museum. Wouldn't a national museum, located in one of the big cities, with perhaps three or four regional branches, go a long way toward preserving the achievements of printing and making them available as an inspiration to interested school children who are just beginning to wonder "What shall I be when I grow up?"

PAPER RESEARCH

(Continued from Page 50)

ing will lead to a satisfactory method for dimensional stabilization.

In 1951 the Bureau developed techniques for making paper entirely from glass fibers in cooperation with the Naval Research Laboratory. This paper now is widely used, and millions of dollars are invested annually in its production on a commercial scale. It serves as a filter for removing solid particles from gases, and hence is used principally in gas masks and other atmospheric filters. Glass-fiber paper is also employed both as a chemical filter and a dielectric material.

The preservation and restoration of documents is of considerable interest to the National Archives, the Library of Congress, state and municipal records offices, and insurance companies. The Bureau has worked with these groups on problems such as the effect of the chemical content of paper on its aging; the care of books and films in libraries; the preservation of the Constitution and Declaration of Independence; and the lamination of documents with cellulose acetate film. Methods for studying the aging of acetate film have been developed, and improved specifications for laminating film have been prepared.

A study of papers made from groundwood fibers showed that a clay coating, which is sometimes applied to give a better printing surface, affords considerable protection against light. These fibers, used in newsprint and other papers with a short life expectancy, are one of the least expensive papermaking materials. Their use has been limited, however, because they turn yellow when exposed to light.

It was found that the application of commercial coatings, made of finely divided clay, mixed with either starch, glue, casein or synthetic resin as a binder, reduces the deteriorating effects of light by about 50 percent. These results have helped to increase the use of ground-wood fibers in papers requiring a moderate degree of permanency.

A higher degree of refinement is always being sought for almost all types of standards, and this is true of paper standards. A few years ago papermaking machines operated at speeds of a few hundred feet per minute. Today, speeds of over 2,000 feet per minute are easily attained, and printing and converting processes have undergone similar acceleration. Hence, more rigorous specifications are required for the physical properties of paper, as well as new test methods for measuring dynamic rather than static properties. New varieties of paper developed from inorganic and synthetic fibers, and from new nonfibrous materials, also impose demands on all technical organizations connected with the paper industry. The fundamental information now being developed in the Bureau's research effort should prove useful in devising techniques to solve the problems presented by these new trends.*

PRODUCTION CLINIC

(Continued from Page 57)

Some presses are now being equipped with a white metal roller instead of brass. Where this type of roller is used, the ink does not collect on the metal, but the dampeners get dirty much faster.

There is a trend in the industry to replace the brass water roller with stainless steel and, at the same time, replace the steel inking roller with copper or nylon. Where this has been tried, it usually solves the problem of ink piling on the water roller. In addition, the copper and nylon inking rollers eliminate stripping.

It has also been found that an excess of etch in the fountain water has a tendency to cause the brass roller to take ink more readily. In your case, I would suggest that you cut down on the quantity of etch in the water fountain, but do not reduce the amount of gum.

PHOTOGRAPHY

(Continued from Page 43)

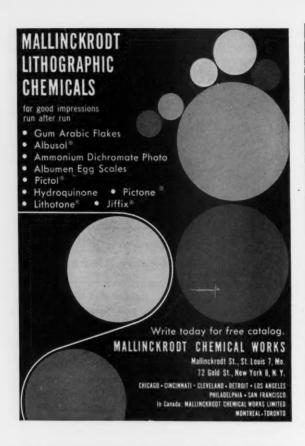
gin with, the age of stable base films is here. PB and Polyester bases are now common to us all. New photographic emulsions brought out in the past year for conventional black and white work have given us improved latitude, higher contrast and greater density. With the advent of stable bases, we have seen a wide

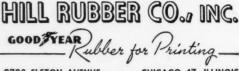


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variety of emulsions specifically designed for color separation work. To reduce costs, we have seen the introduction of specifically designed line films and the use of a bulk pack in many film brands.

3. New Processes

It's difficult to try to cover what is new in the field of color and color separation, as this past year has seen so many improvements in the process. To me, even more startling than the developments in the field has been the increased interest of both printing buyers and printers themselves. Improved and simplified procedures of masking, together with a greater publication of technical information, has taken the fear, confusion and guess work out of color separation. To keep up with the demand for better products, new emulsions for separation use and masking have been introduced.

Aside from the new procedures of masking for color correction, this past year has also seen new interest shown in camera back masking. This procedure involves the use of a negative correcting mask made in the camera to either reflection or transmission copy. The mask is then registered on the camera back to make the corrected color separation negative. The extended use of negative color materials, such as Ektacolor, has also brought out new procedures for handling this type of copy.

Probably the most complicated of all types of equipment for color is the electronic scanner. Basically this type of machine scans the copy and electronically separates the original copy into a continuous tone, color corrected negative. At present, this type of equipment is in operation and each year has shown a steady increase in the amount of work accomplished.

Although the past is filled with developments which at times amaze us, you can be sure that the future is even more inviting. Research on almost every phase of photographic reproduction will bring to us products and equipment beyond our expectations, all designed to solve present problems more efficiently and economically.*

WEB-OFFSET

(Continued from Page 42)

sirable, in the form of non-glare finishes and, when desirable, equal or better strength and bulk with materially reduced basic weight of the stock. During the last year or so in particular, many of the larger buyers of printing have welcomed and adopted this concept.

It is reliably estimated that the number of web-offset presses presently operated in the United States exceeds 1,000, of which some 300 are producing books, telephone directories, publications, catalogs and general advertising matter, while the remainder are devoted to production of forms, envelopes and specialty items, including dress patterns. New installations are running at the rate of perhaps 150 to 200 machines per year.

Essentially all lithographers who acquire such equipment represent the better class in management, scope and size of operations and financial responsibility, for the investment is substantial, ranging from perhaps no more than \$35,000 for a simple forms or specialty presses up to \$350,000 or more for standard multicolor machines and considerably more than \$1 million for custom built units. Daily consumption of paper may represent a cost as great as \$10,000.

Forecasts of trends are usually difficult and uncertain, and they must be made with certain reservations, particularly in the absence of dependable supporting data. In this particular instance, however, it seems that the outlook is reasonably clear, and that all the evidence points toward further widespread adoption of the web-offset press, with nothing discernible to establish itself as a successful rival.

It is believed that the demand for and consumption of such papers will increase substantially more rapidly than for stocks in any other broad category, and that the use of noncoated grades will mount somewhat more rapidly than that of the coateds.

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belief that much of the newsprint consumed on web-offset presses will be upgraded to something at least slightly better, not only because of the improvement in printed results but also because elimination of time lost in running standard news can make possible a higher cost of stock without increase in the price that must be charged for the finished product.*

PLATES

(Continued from Page 38)

Angeles, Eugene Vanavar and Philip Tobias, of Edward Stern and Co., presented a paper on the image-wise electrical deposition of copper. They have developed a method for electrically plating copper through a stencil. The resulting image is much tougher than the image produced by chemical plating. In effect you have a "hard metal" plate when you are finished.

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In the long run plate category, we have two general types of polymetallic plates. The negative working plate consists of a copper layer plated on a base metal, either aluminum or stainless steel. The positiveworking plates have three layers. The top layer is chromium, the middle layer, copper, and the base metal layer, aluminum or steel. One new plate is being field tested which has chromium plated on a cheap steel, so-called black iron such as tin cans are made from. It is made from a positive. After the chromium layer has been removed in the image areas, the steel is made ink receptive by plating copper onto it either electrolytically or chemically.

Again, many of the advances in the hard metal field have been small undramatic changes but which in the aggregate represent a considerable improvement. And let us not forget that these plates have been with us for just over 10 years. Also, the coatings which I mentioned earlier, which use a diazo sensitizer, can be utilized with these plates, so that I expect that in the not too distant future it will be possible to

purchase presentitized polymetallic plates.

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We now get to the presensitized field. By far the most impressive achievements have been made in this area. Plates are now available in all sizes up to and including the 77" presses. Both positive working and negative working plates can be had. They are available brush-grained, micro-etched and smooth surfaced. You can get them coated on one side or on two sides. They are available with a paper base, a plastic coated paper base or aluminum. Recently a plate has been announced which is made of black iron coated with a ceramic surface. However, this should probably have been mentioned under the surface plates since it is a wipeon plate.

These plates are getting better every day. Not only is the plate itself being improved, but there have been improvements in technique and in the lacquers being used. Every day we hear reports of longer and longer runs. A recent issue of one of the trade magazines reported on one shop which did not find it unusual to obtain runs of around 400,000 impressions.

Not only have our basic materials and techniques improved, but much of our equipment, particularly arc lights, have followed suit. We now have pin register systems which permit photocomposing on the frame. One system coordinates the register all the way from the stripping step to the press.

Finally, we cannot overlook the vast amount of research which has been done by LTF and our suppliers, which has led to a better understanding of variables, permitting us to employ sound quality control practices. Outstanding among these is a simple \$2.50 piece of film which is now commonplace and familiar to everyone. I am referring to the LTF Sensivity Guide. It was introduced to the industry just over 10 years ago. Properly used, it will go a long way in taking much of the guess work out of litho platemaking.*

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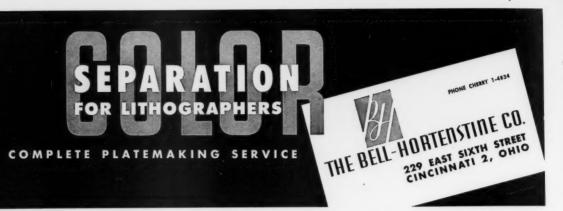
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Sterlip Press, Inc., New York, an ATF Super Chief.

Hennegan Co. Elects V-Ps

John E. Hennegan, president of the Hennegan Co., Cincinnati, lithographic firm, has announced the recent election of Robert B. Ott and Donald K. MacEwen as company vice presidents. Both have been with the firm since 1946, the last 10 years in sales.



LOCAL BUYERS GUIDE

Advertising rates in the Local Buyer's Guide are: \$7.50 per column inch. Please mail copy and check or money order to Modern Lithography, P.O. Box 31, Caldwell, N.J.

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READERS:

Are you taking full advantage of your lithographic magazine?

THE staff of Modern Lithography has been trying, in several important ways, to make the pages of your magazine more valuable to you. Increased in-person coverage of litho club and trade association meetings has been one way. Interpretative articles on subjects of vital interest to you is another. That's the reason for our recent series on presensitized plates, three-color direct separation, and visits to typical litho shops and for our expanded coverage of the litho news in all parts of the United States and foreign countries.

Our climbing circulation figures indicate your appreciation of our efforts. But are you taking full advantage of your lithographic magazine? In past months, many of you have availed yourself of the services of our two regular columnists, Frank Arbolino (Press Clinic) and Herbert P. Paschel (Photographic Clinic). The purpose of this page is to remind you that if you have a troublesome problem regarding press or camera, these specialists are ready to help you solve it. If you are a subscriber to ML and have a question, why not jot it down on the coupon below and send it along to us? We'll be glad to help you, and the service is free.

31, Caldwell, N. J.	☐ Mr. Arbolino (Press)	☐ Mr. Paschel (Photography)
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TALE ENDS

CONTINUED success for the National Association of Litho Clubs seems assured, to judge by the large attendance in Minneapolis last month and the enthusiastic remarks of delegates to the annual convention. Total attendance may have fallen a bit short of the big gatherings in Washington and Chicago last year and the year before, but the high quality of the program marked this meeting as another distinct success.

Minneapolis Litho Clubbers got things off on a happy note by giving a real welcome to visiting lithographers. A special detachment from Milwaukee, for instance, got a royal reception at the airport and a police escort, no less, into the Hotel Leamington! And the hospitality didn't stop there. Came time to head back home and the host club provided return transportation.

Fred Fowler, of Washington, one of the hardest workers in the NALC, was rewarded for his long years of behind the scenes work in the group by being elected president to succeed Herman Goebel, of the host city.

So thorough had been the preliminary business session at the mid-season Council of Administration meetings (with the three-way phone hookup) that the delegates had nary an argument on their hands, and the only real excitement came over the choice of a site for the 1962 convention. New York and Rochester were bidding strongly for the meeting, but a dramatic last minute invitation from the young South Florida club succeeded in capturing the meeting for Miami. (It will be in Boston next year; Dayton in '61.)

Already the preliminary jockeying is underway among the club members, we suspect, to get appointed as a representative to that sunny convention!

That old battle of dues was not officially opened at the meeting, but there were cautions from several officers that, with rising postage and travel costs, etc., and with a desire to give individual members more services, including, one of these days, a permanent executive secretary, dues may have to be raised in the near future to provide for an expanded budget. ML could find very little enthusiasm for the idea, and it is believed that the organization will go very slowly on it, and precede any such proposition with an educational program aimed at showing litho clubs just what they stand to receive from the national organization.

Toward the end of the convention, the lobby of the venerable Leamington got a bit crowded with other conventioneers, and it was difficult at times to tell a lithographer from a Benevolent and Protective Doe, an Ancient Honorable Soo, or a Noble of the Mystic Navel.

A fine smörgasbord and some really lively dance music got things off to a fast start on Thursday evening.

Twin City Litho Clubbers did such an enthusiastic job describing the hundreds of lakes which abound in Minnesota that quite a few lithographers extended their trip to include a little fishing. There were some reports of fine catches, but others admitted ruefully that they got no closer to anything with fins than the walleyed pike that was served at luncheon on Friday.

Jim Fraggos showed up in a Paul Revere hat to remind the members of next year's meeting in Boston. So great was Jim's dedication to his publicity task, it is reported, that he slept and even took a shower without removing the headware.

Reports filtering back to the U. S. from Cuba indicate that, to some lithographers, at least, the assumption of power by Fidel Castro has been a mixed blessing, at best. Cuban lithographers have been instructed to raise wages and shorten hours, but with no price increase allowed. That's nice work if you can do it, with all the other production problems a lithographer faces every day!



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